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Db      181 GGGAAAGCCCCCTAACCTCCTGATCTATACTGCATCCACTTTACAAAGTGGGGTCCCATCA 240
Qy      247 AGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCCT 306
        |||||
Db      241 AGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAACCT 300
Qy      307 GAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGCCAG 366
        |||||
Db      301 GAAGATTTTGCAACTTACTATTGTCAACAGGCTAACATTTTCCCGCTCACTTTTCGGCGGA 360
Qy      367 GGGACCAAGCTGGAGATCAAAC 388
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Db      361 GGGACCAAGGTGGAGATCAAAC 382

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RESULT 12

US-10-309-762-111

; Sequence 111, Application US/10309762

; Publication No. US20040018198A1

; GENERAL INFORMATION:

; APPLICANT: Gudas, Jean

; APPLICANT: Foltz, Ian

; APPLICANT: Handa, Masahisa

; APPLICANT: Gallo, Michael

; TITLE OF INVENTION: ANTIBODIES AGAINST CARBOXYIC ANHYDRASE IX

; TITLE OF INVENTION: (CA IX) TUMOR ANTIGEN

; FILE REFERENCE: ABGENIX.027A

; CURRENT APPLICATION NUMBER: US/10/309,762

; CURRENT FILING DATE: 2002-12-02

; PRIOR APPLICATION NUMBER: 60/337275

; PRIOR FILING DATE: 2001-12-03

; NUMBER OF SEQ ID NOS: 246

; SOFTWARE: FastSEQ for Windows Version 4.0

; SEQ ID NO 111

; LENGTH: 381

; TYPE: DNA

; ORGANISM: Homo sapiens

US-10-309-762-111

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Query Match          87.3%; Score 338.8; DB 16; Length 381;
Best Local Similarity 94.8%; Pred. No. 4.6e-97;
Matches 362; Conservative 0; Mismatches 17; Indels 3; Gaps 1;

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Qy      7 ATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATGC 66
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Db      1 ATGAGGGTCCCTGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATGC 60
Qy     67 GACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCACC 126
        |||||
Db     61 GACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCACC 120
Qy    127 ATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACCA 186
        |||||
Db    121 ATCACTTGTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACCA 180
Qy    187 GGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCCATCA 246
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Db      181 GGGAAAGCCCCTAAGGTCCTGATCTATTCTACATCCAGGTTGCAAAGTGGGGTCCCATCA 240
Qy      247 AGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCCT 306
        |||
Db      241 AGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGTCTGCAGCCT 300
Qy      307 GAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGCCAG 366
        |||
Db      301 GAAGATTTTGCAACTTACTATTGTCAACAGGCTGACAGTTTCCGG---ACGTTCCGCCAA 357
Qy      367 GGGACCAAGCTGGAGATCAAAC 388
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Db      358 GGGACCAAGGTGGAAATCAAAC 379

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RESULT 13

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US-09-905-243-57
; Sequence 57, Application US/09905243
; Patent No. US20020062009A1
; GENERAL INFORMATION:
; APPLICANT: Taylor, Alexander H
; TITLE OF INVENTION: Monoclonal Antibodies with Reduced
; TITLE OF INVENTION: Immunogenicity
; FILE REFERENCE: P50770
; CURRENT APPLICATION NUMBER: US/09/905,243
; CURRENT FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: 09/300,970
; PRIOR FILING DATE: 1999-04-28
; NUMBER OF SEQ ID NOS: 97
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 57
; LENGTH: 390
; TYPE: DNA
; ORGANISM: Macaca cynomolgus
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)...(390)
US-09-905-243-57

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Query Match          87.2%; Score 338.4; DB 9; Length 390;
Best Local Similarity 92.0%; Pred. No. 6.2e-97;
Matches 357; Conservative 0; Mismatches 31; Indels 0; Gaps 0;

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Qy      1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 60
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Db      1 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGCTCCTAGGTGCC 60
Qy     61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
        |||
Db     61 AGATGTGACATCCAGATGACCCAGTCTCCTTCTTCCTTGTCTGCATCTGTAGGAGACAGA 120
Qy    121 GTCACCATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
        |||
Db    121 GTCACCATCACTTGCCAAGCCAGTCAGGGTATTAGCAACTGGTTAGCCTGGTATCAGCAG 180
Qy    181 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
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```

Qy      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
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Db      274 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 333

Qy      301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
        |||||||||||||||||||| || |||||||| |||||||| ||||||||
Db      334 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGTTTAATAGTTTCCCGCTCACTTTC 393

Qy      361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
        ||| |||||||| ||||||||
Db      394 GGCGGAGGGACCAAGGTGGAGATCAAAC 421

```

Search completed: December 3, 2004, 02:43:19
Job time : 299.477 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 12:19:03 ; Search time 2019.63 Seconds
(without alignments)
7000.593 Million cell updates/sec

Title: US-08-728-463B-206
Perfect score: 388
Sequence: 1 ATGGACATGATGGTCCCCGC.....GACCAAGCTGGAGATCAAAC 388

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 32822875 seqs, 18219865908 residues

Total number of hits satisfying chosen parameters: 65645750

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : EST:*
1: gb_est1:*
2: gb_est2:*
3: gb_htc:*
4: gb_est3:*
5: gb_est4:*
6: gb_est5:*
7: gb_est6:*
8: gb_gss1:*
9: gb_gss2:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,

and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	%		DB	ID	Description
		Query	Match Length			
1	378.4	97.5	943	2	BF976230	BF976230 602245105
2	367.2	94.6	1100	2	BF663472	BF663472 602144635
3	365.6	94.2	606	6	CD690290	CD690290 EST6813 h
4	364	93.8	755	4	BG533970	BG533970 602553071
5	362.4	93.4	472	6	CD702614	CD702614 EST19139
6	357.6	92.2	497	6	CD696718	CD696718 EST13241
7	357.6	92.2	558	6	CD690030	CD690030 EST6553 h
8	357.6	92.2	605	6	CD688415	CD688415 EST4937 h
9	355.2	91.5	851	4	BG686018	BG686018 602638582
10	355.2	91.5	894	4	BG341803	BG341803 602463535
11	352.4	90.8	421	6	CD690477	CD690477 EST7000 h
12	350.8	90.4	912	2	BF129120	BF129120 601811580
13	349.6	90.1	510	6	CD694557	CD694557 EST11080
14	346.4	89.3	459	6	CD695600	CD695600 EST12123
15	344.8	88.9	484	6	CD696042	CD696042 EST12565
16	344.2	88.7	903	5	BQ706785	BQ706785 AGENCOURT
17	343.4	88.5	561	6	CD706288	CD706288 EST22815
18	343.2	88.5	487	2	AW405988	AW405988 UI-HF-BL0
19	343.2	88.5	724	4	BI837410	BI837410 603086702
20	343.2	88.5	759	6	CB984469	CB984469 AGENCOURT
21	343.2	88.5	886	4	BG756818	BG756818 602710291
22	342.2	88.2	818	3	CR597684	CR597684 full-leng
23	341.6	88.0	769	6	CB957759	CB957759 AGENCOURT
24	341.4	88.0	710	6	CD695065	CD695065 EST11588
25	340.8	87.8	906	4	BG756264	BG756264 602713576
26	338.8	87.3	1112	4	BM924778	BM924778 AGENCOURT
27	338.4	87.2	433	2	AW951891	AW951891 EST363961
28	338.4	87.2	545	6	CD697196	CD697196 EST13719
29	338.4	87.2	611	6	CD702728	CD702728 EST19253
30	338.4	87.2	629	6	CD697149	CD697149 EST13672
31	338.4	87.2	830	4	BG535683	BG535683 602563394
32	337.6	87.0	486	6	CD683960	CD683960 EST480 hu
33	337.4	87.0	630	6	CD694356	CD694356 EST10879
34	337.4	87.0	689	6	CB055233	CB055233 NISC_gm08
35	337	86.9	947	6	CB987663	CB987663 AGENCOURT
36	336.8	86.8	560	4	BM823497	BM823497 K-EST0094
37	336.8	86.8	741	6	CB958688	CB958688 AGENCOURT
38	335.4	86.4	594	4	BI001311	BI001311 MR2-HN006
39	335.2	86.4	610	6	CD691065	CD691065 EST7588 h
40	335.2	86.4	631	5	BX646383	BX646383 DKFZp781G
41	335.2	86.4	677	6	CD692170	CD692170 EST8709 h
42	333.8	86.0	726	6	CB986484	CB986484 AGENCOURT
43	333.6	86.0	504	6	CD696759	CD696759 EST13282
44	333.6	86.0	624	6	CD690145	CD690145 EST6668 h
45	332	85.6	447	2	AW405752	AW405752 UI-HF-BL0

ALIGNMENTS

RESULT 1

BF976230

LOCUS BF976230 943 bp mRNA linear EST 22-JAN-2001
DEFINITION 602245105F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4336225 5',
mRNA sequence.

ACCESSION BF976230

VERSION BF976230.1 GI:12343445

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 943)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Louis M. Staudt, M.D., Ph.D.

cDNA Library Preparation: Ling Hong/Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM1208 row: j column: 02

High quality sequence stop: 721.

FEATURES

source

Location/Qualifiers

1..943

/organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"

/clone="IMAGE:4336225"

/tissue_type="primary B-cells from tonsils (cell line)"

/lab_host="DH10B (phage-resistant)"

/clone_lib="NIH_MGC_48"

/note="Organ: B-cells; Vector: pOTB7; Site_1: XhoI;

Site_2: EcoRI; cDNA made by oligo-dT priming.

Directionally cloned into EcoRI/XhoI sites using the
following 5' adaptor: GGCACGAG(G). Size-selected >500bp
for average insert size 1.8kb. Library constructed by Ling
Hong in the laboratory of Gerald M. Rubin (University of
California, Berkeley) using ZAP-cDNA synthesis kit
(Stratagene) and Superscript II RT (Life Technologies).

Note: this is a NIH_MGC Library."

ORIGIN

Query Match 97.5%; Score 378.4; DB 2; Length 943;

Best Local Similarity 98.5%; Pred. No. 4.5e-105;

Matches 382; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 60
|||||

Db 18 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 77
|||||

Qy 61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
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Db      78 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 137
Qy      121 GTCACCATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
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Db      138 GTCACCATCACTTGTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 197
Qy      181 AAACCAGGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
        |||
Db      198 AAACCAGGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 257
Qy      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
        |||
Db      258 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 317
Qy      301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
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Db      318 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCTCACACTTTT 377
Qy      361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
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Db      378 GGCCAGGGGACCAAGCTGGAGATCAAAC 405

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RESULT 2

BF663472

LOCUS BF663472 1100 bp mRNA linear EST 21-DEC-2000

DEFINITION 602144635F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4297736 5',
mRNA sequence.

ACCESSION BF663472

VERSION BF663472.1 GI:11937367

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 1100)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Louis M. Staudt, M.D., Ph.D.

cDNA Library Preparation: Ling Hong/Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM1152 row: f column: 09

High quality sequence stop: 704.

FEATURES

source

Location/Qualifiers

1. .1100

/organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"

/clone="IMAGE:4297736"

/tissue_type="primary B-cells from tonsils (cell line)"

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/lab_host="DH10B (phage-resistant)"
/clone_lib="NIH_MGC_48"
/note="Organ: B-cells; Vector: pOTB7; Site_1: XhoI;
Site_2: EcoRI; cDNA made by oligo-dT priming.
Directionally cloned into EcoRI/XhoI sites using the
following 5' adaptor: GGCACGAG(G). Size-selected >500bp
for average insert size 1.8kb. Library constructed by Ling
Hong in the laboratory of Gerald M. Rubin (University of
California, Berkeley) using ZAP-cDNA synthesis kit
(Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH_MGC Library."

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ORIGIN

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Query Match          94.6%;  Score 367.2;  DB 2;  Length 1100;
Best Local Similarity 96.6%;  Pred. No. 1.3e-101;
Matches 375;  Conservative 0;  Mismatches 13;  Indels 0;  Gaps 0;

Qy      1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCAGGTTCC 60
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Db      8 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCAGGTTCC 67

Qy     61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
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Db     68 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 127

Qy    121 GTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
      |||
Db    128 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 187

Qy    181 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
      |||
Db    188 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTTCATCCAGTTTGCAAAGTGGGGTC 247

Qy    241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
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Db    248 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 307

Qy    301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
      |||
Db    308 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCTCTCACTTTC 367

Qy    361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
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Db    368 GGCGGAGGGACCAAGGTGGAGATCAAAC 395

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RESULT 3

```

CD690290
LOCUS      CD690290          606 bp    mRNA    linear    EST 25-JUN-2003
DEFINITION EST6813 human nasopharynx Homo sapiens cDNA, mRNA sequence.
ACCESSION  CD690290
VERSION    CD690290.1  GI:32210896
KEYWORDS   EST.
SOURCE     Homo sapiens (human)
ORGANISM   Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

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REFERENCE 1 (bases 1 to 606)
AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and Zeng,Y.-X.
TITLE Transcriptional Gene Expression Profile of Human Nasopharynx
JOURNAL Unpublished (2003)
COMMENT Contact: YiXin Zeng
Cancer Center
Sun Yat-sen University
651 DongFeng Road East, GuangZhou 510060, China
Tel: 86-1380-9770-743
Fax: 86-20-8775-4506
Email: yxzeng@gzsums.edu.cn.

FEATURES Location/Qualifiers
source 1..606
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/tissue_type="normal nasopharynx"
/clone_lib="human nasopharynx"
/note="ESTs generated from a normal nasopharynx cDNA library from southern Chinese"

ORIGIN

Query Match 94.2%; Score 365.6; DB 6; Length 606;
Best Local Similarity 96.4%; Pred. No. 3.5e-101;
Matches 374; Conservative 0; Mismatches 14; Indels 0; Gaps 0;

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Qy      1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 60
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Db      68 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 127

Qy      61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
      |||
Db      128 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCTGTGTCTGCATCTGTAGGAGACAGA 187

Qy      121 GTCACCATCACTTGTTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
      |||
Db      188 GTCACCATCACTTGTTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 247

Qy      181 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
      |||
Db      248 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 307

Qy      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
      |||
Db      308 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACTATCAGCAGCCTG 367

Qy      301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
      |||
Db      368 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCCGCCACTTTC 427

Qy      361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
      |||
Db      428 GGCGGAGGGACCAAGGTGGAGATCAAAC 455

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RESULT 4

BG533970
 LOCUS BG533970 755 bp mRNA linear EST 03-APR-2001
 DEFINITION 602553071F1 NIH_MGC_77 Homo sapiens cDNA clone IMAGE:4663096 5',
 mRNA sequence.
 ACCESSION BG533970
 VERSION BG533970.1 GI:13525510
 KEYWORDS EST.
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 REFERENCE 1 (bases 1 to 755)
 AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.
 TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
 JOURNAL Unpublished (1999)
 COMMENT Contact: Robert Strausberg, Ph.D.
 Email: cgapbs-r@mail.nih.gov
 Tissue Procurement: CLONTECH Laboratories, Inc.
 cDNA Library Preparation: CLONTECH Laboratories, Inc.
 cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
 DNA Sequencing by: Incyte Genomics, Inc.
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LLNL at:
<http://image.llnl.gov>
 Plate: LLCM1464 row: m column: 17
 High quality sequence stop: 726.

FEATURES Location/Qualifiers
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 /organism="Homo sapiens"
 /mol_type="mRNA"
 /db_xref="taxon:9606"
 /clone="IMAGE:4663096"
 /lab_host="DH10B (T1 phage-resistant)"
 /clone_lib="NIH_MGC_77"
 /note="Organ: lung; Vector: pDNR-LIB (Clontech); Site_1:
 SfiI (ggccgcctcggcc); Site_2: SfiI (ggccattatggcc); 5' and
 3' adaptors were used in cloning as follows: 5' adaptor
 sequence: 5'-CACGGCCATTATGGCC-3' and 3' adaptor sequence:
 5'-ATTCTAGAGGCCGAGGCCGACATG-dT(30)BN-3' (where B = A,
 C, or G and N = A, C, G, or T). Average insert size 1.9
 kb (range 0.5-4.0 kb). 12/15 colonies contained inserts
 by PCR. This library was enriched for full-length clones
 and was constructed by Clontech Laboratories (Palo Alto,
 CA). Note: this is a NIH_MGC Library."

ORIGIN

Query Match 93.8%; Score 364; DB 4; Length 755;
 Best Local Similarity 96.1%; Pred. No. 1.1e-100;
 Matches 373; Conservative 0; Mismatches 15; Indels 0; Gaps 0;

Qy 1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 60
 |||||
 Db 28 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 87
 Qy 61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
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 Db 88 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACGGA 147

```

Qy      121 GTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
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Db      148 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATCAGCAGCTGGTTAGCCTGGTATCAGCAG 207

Qy      181 AAACCAGGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
          |||
Db      208 AAAGCAGGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 267

Qy      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
          |||
Db      268 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 327

Qy      301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
          |||
Db      328 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGGTAACAGTTTCCCTTTCACTTTT 387

Qy      361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
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Db      388 GGCGGAGGGACCAAGGTGGAGATCAAAC 415

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RESULT 5

CD702614

LOCUS CD702614 472 bp mRNA linear EST 25-JUN-2003

DEFINITION EST19139 human nasopharynx Homo sapiens cDNA, mRNA sequence.

ACCESSION CD702614

VERSION CD702614.1 GI:32233244

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 472)

AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and
Zeng,Y.-X.

TITLE Transcriptional Gene Expression Profile of Human Nasopharynx

JOURNAL Unpublished (2003)

COMMENT Contact: YiXin Zeng

Cancer Center

Sun Yat-sen University

651 DongFeng Road East, GuangZhou 510060, China

Tel: 86-1380-9770-743

Fax: 86-20-8775-4506

Email: yxzeng@gzsums.edu.cn.

FEATURES

source

Location/Qualifiers

1..472

/organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"

/tissue_type="normal nasopharynx"

/clone_lib="human nasopharynx"

/note="ESTs generated from a normal nasopharynx cDNA

library from southern Chinese"

ORIGIN

Query Match

93.4%; Score 362.4; DB 6; Length 472;

Best Local Similarity 95.9%; Pred. No. 3.1e-100;
Matches 372; Conservative 0; Mismatches 16; Indels 0; Gaps 0;

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Qy      1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCACAGGTTCC 60
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Db      52 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCACAGGTTCC 111

Qy      61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
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Db     112 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGC 171

Qy     121 GTCACCATCACTTGTTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
        |||
Db     172 GTCACCATCACTTGTTCGGGCGAGTCAGGCTATTAGCACCTGGTTAGCCTGGTATCAGCAG 231

Qy     181 AAACCAGGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
        |||
Db     232 AAACCAGGGAAAGCCCCCTAAGCTCCTGATCTATACTGCATCCAGTTTGCAAAGTGGGGTC 291

Qy     241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
        |||
Db     292 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 351

Qy     301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
        |||
Db     352 CAGCCTGAAGATTTTGCAACTTACTATGGTCAACAGGCTAACAGTTTCCCTCTCACTTTC 411

Qy     361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
        |||
Db     412 GGCGGAGGGACCAAGGTGGAGATCAAAC 439
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RESULT 6

CD696718

LOCUS CD696718 497 bp mRNA linear EST 25-JUN-2003

DEFINITION EST13241 human nasopharynx Homo sapiens cDNA, mRNA sequence.

ACCESSION CD696718

VERSION CD696718.1 GI:32223477

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 497)

AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and
Zeng,Y.-X.

TITLE Transcriptional Gene Expression Profile of Human Nasopharynx

JOURNAL Unpublished (2003)

COMMENT Contact: YiXin Zeng

Cancer Center

Sun Yat-sen University

651 DongFeng Road East, GuangZhou 510060, China

Tel: 86-1380-9770-743

Fax: 86-20-8775-4506

Email: yxzeng@gzsums.edu.cn.

FEATURES Location/Qualifiers

source 1..497

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/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/tissue_type="normal nasopharynx"
/clone_lib="human nasopharynx"
/note="ESTs generated from a normal nasopharynx cDNA
library from southern Chinese"

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ORIGIN

Query Match 92.2%; Score 357.6; DB 6; Length 497;
Best Local Similarity 95.1%; Pred. No. 9.5e-99;
Matches 369; Conservative 0; Mismatches 19; Indels 0; Gaps 0;

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Qy      1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 60
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Db      47 ATGGACAGGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 106

Qy      61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     107 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGGGTCTGCTTCTGTAGGAGACAGA 166

Qy     121 GTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     167 GTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAG 226

Qy     181 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     227 AAACCAGGGAAAGCCCCTAAGCTCCTCGTCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 286

Qy     241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     287 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 346

Qy     301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     347 CAGCCTGAAGATTTTGCAACTTACTATGGTCAACAGGCTAACAGTTTCCCTTTCACTTTC 406

Qy     361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
      |||| ||||| |||| |||||
Db     407 GGCCCTGGGACCAAAGTGGATATCAAAC 434

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RESULT 7

CD690030

LOCUS CD690030 558 bp mRNA linear EST 25-JUN-2003

DEFINITION EST6553 human nasopharynx Homo sapiens cDNA, mRNA sequence.

ACCESSION CD690030

VERSION CD690030.1 GI:32210387

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 558)

AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and
Zeng,Y.-X.

TITLE Transcriptional Gene Expression Profile of Human Nasopharynx

JOURNAL Unpublished (2003)
COMMENT Contact: YiXin Zeng
Cancer Center
Sun Yat-sen University
651 DongFeng Road East, GuangZhou 510060, China
Tel: 86-1380-9770-743
Fax: 86-20-8775-4506
Email: yxzeng@gzsums.edu.cn.

FEATURES Location/Qualifiers
source 1. .558
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/tissue_type="normal nasopharynx"
/clone_lib="human nasopharynx"
/note="ESTs generated from a normal nasopharynx cDNA
library from southern Chinese"

ORIGIN

Query Match 92.2%; Score 357.6; DB 6; Length 558;
Best Local Similarity 95.1%; Pred. No. 9.9e-99;
Matches 369; Conservative 0; Mismatches 19; Indels 0; Gaps 0;

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Qy      1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCAGGTTCC 60
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Db      50 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCAGGTTCC 109

Qy      61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
      |||
Db     110 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 169

Qy     121 GTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
      |||
Db     170 GTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCACCTGGTTAGCCTGGTATCAGCAG 229

Qy     181 AAACCAGGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
      |||
Db     230 AAACCAGGGAAAGCCCCCTAAACTCCTGATCTATGCTGCATCCAATTTGCTAAGTGGGGTC 289

Qy     241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
      |||
Db     290 CCATCAAGATTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAACAGCCTG 349

Qy     301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
      |||
Db     350 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCTCGGACGTTC 409

Qy     361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
      |||
Db     410 GGCCAAGGGACCAAGGTGGAAATCAAAC 437
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RESULT 8

CD688415

LOCUS CD688415 605 bp mRNA linear EST 25-JUN-2003
DEFINITION EST4937 human nasopharynx Homo sapiens cDNA, mRNA sequence..
ACCESSION CD688415

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VERSION      CD688415.1   GI:32207195
KEYWORDS     EST.
SOURCE       Homo sapiens (human)
ORGANISM     Homo sapiens
              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
              Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE    1 (bases 1 to 605)
AUTHORS      Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and
              Zeng,Y.-X.
TITLE        Transcriptional Gene Expression Profile of Human Nasopharynx
JOURNAL      Unpublished (2003)
COMMENT      Contact: YiXin Zeng
              Cancer Center
              Sun Yat-sen University
              651 DongFeng Road East, GuangZhou 510060, China
              Tel: 86-1380-9770-743
              Fax: 86-20-8775-4506
              Email: yxzeng@gzsums.edu.cn.
FEATURES     Location/Qualifiers
              source          1..605
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                               /mol_type="mRNA"
                               /db_xref="taxon:9606"
                               /tissue_type="normal nasopharynx"
                               /clone_lib="human nasopharynx"
                               /note="ESTs generated from a normal nasopharynx cDNA
                               library from southern Chinese"
ORIGIN
Query Match          92.2%;   Score 357.6;   DB 6;   Length 605;
Best Local Similarity 95.1%;   Pred. No. 1e-98;
Matches 369;   Conservative    0;   Mismatches 19;   Indels    0;   Gaps    0;

Qy      1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 60
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Db      47 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 106

Qy      61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
        |||||||
Db      107 AGATGCGACATCCACATGACCCAGTCTCCATCTTCTGTGTCTGCATCTGTTGGAGACAGA 166

Qy      121 GTCACCATCACTTGTCTGGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
        |||||||
Db      167 GTCACCATCACTTGTCTGGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 226

Qy      181 AAACCAGGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
        |||||||
Db      227 AAACCAGGGAAAGCCCCCTAAACTCCTGATCTCTACTGCATCCAGTTTGCAAAGTGGGGTC 286

Qy      241 CCATCAAGGTTTACGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
        |||||||
Db      287 CCATCAAGGTTTACGCGGCAGTGGATCTGGGACAGATTTCACTCTCACTATCAGCAGCCTG 346

Qy      301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
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Db      347 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGACTAACAGTTTCCCGCTCACTTTC 406

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Db      8 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 67

QY      61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
      |||
Db      68 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 127

QY      121 GTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
      |||
Db      128 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 187

QY      181 AAACCAGGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
      |||
Db      188 AAACCA-GGAAAGCCCCCTAAGCTCCTGATCTATGCTTCATCCAGTTTGCAAAGTGGGGTC 246

QY      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
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Db      247 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 306

QY      301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
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Db      307 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCTCTCACTTTC 366

QY      361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
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Db      367 GGCGGAGGGACCAAGGTGGAGATCAAAC 394

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RESULT 10

BG341803

LOCUS BG341803 894 bp mRNA linear EST 27-FEB-2001

DEFINITION 602463535F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4576136 5', mRNA sequence.

ACCESSION BG341803

VERSION BG341803.1 GI:13148241

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 894)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Louis M. Staudt, M.D., Ph.D.

cDNA Library Preparation: Ling Hong/Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM1288 row: f column: 09

High quality sequence stop: 636.

FEATURES

source

Location/Qualifiers

1..894

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/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:4576136"
/tissue_type="primary B-cells from tonsils (cell line)"
/lab_host="DH10B (phage-resistant)"
/clone_lib="NIH_MGC_48"
/note="Organ: B-cells; Vector: pOTB7; Site_1: XhoI;
Site_2: EcoRI; cDNA made by oligo-dT priming.
Directionally cloned into EcoRI/XhoI sites using the
following 5' adaptor: GGCACGAG(G). Size-selected >500bp
for average insert size 1.8kb. Library constructed by Ling
Hong in the laboratory of Gerald M. Rubin (University of
California, Berkeley) using ZAP-cDNA synthesis kit
(Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH_MGC Library."

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ORIGIN

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Query Match          91.5%;   Score 355.2;   DB 4;   Length 894;
Best Local Similarity 96.4%;   Pred. No. 6.2e-98;
Matches 374;   Conservative 0;   Mismatches 13;   Indels 1;   Gaps 1;

Qy      1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 60
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Db      13 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 72

Qy      61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
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Db      73 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 132

Qy      121 GTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
      |||
Db      133 GTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAG 192

Qy      181 AAACCAGGGAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
      |||
Db      193 AAACCA-GGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 251

Qy      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
      |||
Db      252 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 311

Qy      301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
      |||
Db      312 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTCACAGTTTCCCATTTCACTTTT 371

Qy      361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
      |||
Db      372 GGCCCTGGGACCAAGTGGATATCAAAC 399

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RESULT 11

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CD690477
LOCUS      CD690477          421 bp      mRNA      linear      EST 25-JUN-2003
DEFINITION EST7000 human nasopharynx Homo sapiens cDNA, mRNA sequence.
ACCESSION  CD690477
VERSION    CD690477.1  GI:32211261

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KEYWORDS EST.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 421)
AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and
Zeng,Y.-X.
TITLE Transcriptional Gene Expression Profile of Human Nasopharynx
JOURNAL Unpublished (2003)
COMMENT Contact: YiXin Zeng
Cancer Center
Sun Yat-sen University
651 DongFeng Road East, GuangZhou 510060, China
Tel: 86-1380-9770-743
Fax: 86-20-8775-4506
Email: yxzeng@gzsums.edu.cn.

FEATURES Location/Qualifiers
source 1..421
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/tissue_type="normal nasopharynx"
/clone_lib="human nasopharynx"
/note="ESTs generated from a normal nasopharynx cDNA
library from southern Chinese"

ORIGIN

Query Match 90.8%; Score 352.4; DB 6; Length 421;
Best Local Similarity 94.6%; Pred. No. 3.6e-97;
Matches 365; Conservative 0; Mismatches 21; Indels 0; Gaps 0;

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Db      36 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCTCAGGTTCC 95

Qy      61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
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Db      96 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCTGTGTCTGCATCTGTGGGAGACAGA 155

Qy     121 GTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
      |||
Db     156 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCTG 215

Qy     181 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
      |||
Db     216 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATACTGCATCCAGTTTGCAAAGTGGGGTC 275

Qy     241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
      |||
Db     276 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACTATCAGCAGCCTG 335

Qy     301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
      |||
Db     336 CAGCCTGACGATTTTGCAACTTACTATTGTCAACAGACTAACACTTCCCTCTCACTTTT 395

Qy     361 GGCCAGGGGACCAAGCTGGAGATCAA 386

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Db 396 GGCGGCGGGACCAAGGTGGAGATCAA 421

RESULT 12

BF129120

LOCUS BF129120 912 bp mRNA linear EST 24-OCT-2000

DEFINITION 601811580F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4054530 5', mRNA sequence.

ACCESSION BF129120

VERSION BF129120.1 GI:10968160

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 912)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Louis M. Staudt, M.D., Ph.D.

cDNA Library Preparation: Ling Hong/Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM894 row: p column: 19

High quality sequence stop: 695.

FEATURES

source

Location/Qualifiers

1..912

/organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"

/clone="IMAGE:4054530"

/tissue_type="primary B-cells from tonsils (cell line)"

/lab_host="DH10B (phage-resistant)"

/clone_lib="NIH_MGC_48"

/note="Organ: B-cells; Vector: pOTB7; Site_1: XhoI;

Site_2: EcoRI; cDNA made by oligo-dT priming.

Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGACGAG(G). Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies).

Note: this is a NIH_MGC Library."

ORIGIN

Query Match 90.4%; Score 350.8; DB 2; Length 912;

Best Local Similarity 94.3%; Pred. No. 1.4e-96;

Matches 364; Conservative 0; Mismatches 22; Indels 0; Gaps 0;

QY 3 GGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCAGGTTCCAG 62

||||| ||||||||| ||||||||| ||

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Db      1 GGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCAGGTTCTAG 60
Qy      63 ATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGT 122
        |||
Db      61 ATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCCGTAGGAGACAGAGT 120
Qy      123 CACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAA 182
        |||
Db      121 CACCATCACTTGTCTGGGCGAGTCAGGATATTAGTAGTTGGTTAGCCTGGTATCAGCAGAA 180
Qy      183 ACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCC 242
        |||
Db      181 ACCAGGGAAAGCCCCTAAACTCCTGATCTATGCTGCATCCAGTTTACAAAGTGGGGTCCC 240
Qy      243 ATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCA 302
        |||
Db      241 ATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTACA 300
Qy      303 GCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGG 362
        |||
Db      301 GCCTGAAGATTTTGCAACTTACCATTGTCTACAGACTAACAGTTTCCCATTCACTTTTCGG 360
Qy      363 CCAGGGGACCAAGCTGGAGATCAAAC 388
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Db      361 CCCTGGGACCAAAGTGGATATCAAGC 386

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RESULT 13

CD694557

LOCUS CD694557 510 bp mRNA linear EST 25-JUN-2003

DEFINITION EST11080 human nasopharynx Homo sapiens cDNA, mRNA sequence.

ACCESSION CD694557

VERSION CD694557.1 GI:32219318

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 510)

AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and Zeng,Y.-X.

TITLE Transcriptional Gene Expression Profile of Human Nasopharynx

JOURNAL Unpublished (2003)

COMMENT Contact: YiXin Zeng

Cancer Center

Sun Yat-sen University

651 DongFeng Road East, GuangZhou 510060, China

Tel: 86-1380-9770-743

Fax: 86-20-8775-4506

Email: yxzeng@gzsums.edu.cn.

FEATURES Location/Qualifiers

source 1..510

/organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"

/tissue_type="normal nasopharynx"

/clone_lib="human nasopharynx"

/note="ESTs generated from a normal nasopharynx cDNA
library from southern Chinese"

ORIGIN

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Query Match          90.1%;  Score 349.6;  DB 6;  Length 510;
Best Local Similarity 93.8%;  Pred. No. 2.8e-96;
Matches 364;  Conservative 0;  Mismatches 24;  Indels 0;  Gaps 0;

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Db      241 AAACCAGGGAAAGCCCCTAAGTTCTGATCTATGCTGCATCCATTTTGCAAAGTGGGGTC 300

Qy      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
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Db      301 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGCTTTCACTCTCACCATCAGCAGCCTG 360

Qy      301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
      |||
Db      361 CAGCCTGAAGATTTGGCAACTTACCATTGTCAACAGGCTAACAGTTTCCCTATCACCTTC 420

Qy      361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
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Db      421 GGCCAAGGGACACGACTGGAGATTAAAC 448
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RESULT 14

CD695600

LOCUS CD695600 459 bp mRNA linear EST 25-JUN-2003

DEFINITION EST12123 human nasopharynx Homo sapiens cDNA, mRNA sequence.

ACCESSION CD695600

VERSION CD695600.1 GI:32221299

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 459)

AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and
Zeng,Y.-X.

TITLE Transcriptional Gene Expression Profile of Human Nasopharynx

JOURNAL Unpublished (2003)

COMMENT Contact: YiXin Zeng

Cancer Center

Sun Yat-sen University

651 DongFeng Road East, GuangZhou 510060, China

Tel: 86-1380-9770-743
Fax: 86-20-8775-4506
Email: yxzeng@gzsums.edu.cn.

FEATURES Location/Qualifiers
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 /organism="Homo sapiens"
 /mol_type="mRNA"
 /db_xref="taxon:9606"
 /tissue_type="normal nasopharynx"
 /clone_lib="human nasopharynx"
 /note="ESTs generated from a normal nasopharynx cDNA
 library from southern Chinese"

ORIGIN

Query Match 89.3%; Score 346.4; DB 6; Length 459;
Best Local Similarity 93.3%; Pred. No. 2.6e-95;
Matches 362; Conservative 0; Mismatches 26; Indels 0; Gaps 0;

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Qy     161 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
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Db     130 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGG 189

Qy     221 GTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
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Db     190 GTCACCATCACTTGTCTGGGCGAGTCAGAGTATTCATACCTGGTTAGCCTGGTATCAGCAG 249

Qy     281 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
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Db     250 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGGTGCATCCAGTGTGCTAAGTGGGGTC 309

Qy     341 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACCTCTCACCATCAGCAGCCTG 300
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Db     310 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACCTCTCATCATCAGCAGCCTG 369

Qy     401 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
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Db     370 CAGCCTGAAGATTAGGCAACTTACTATGGTCAACAGGCTAACAGTTTCCCTCGGACGTTTC 429

Qy     461 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
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Db     430 GGCCAAGGGACCAAGGTGGAAATCAAAC 457
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RESULT 15

CD696042

LOCUS CD696042 484 bp mRNA linear EST 25-JUN-2003

DEFINITION EST12565 human nasopharynx Homo sapiens cDNA, mRNA sequence.

ACCESSION CD696042

VERSION CD696042.1 GI:32222175

KEYWORDS EST.

SOURCE Homo sapiens (human)

 ORGANISM Homo sapiens

 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

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Qy	61	AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA	120
Db	113	AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACACA	172
Qy	121	GTCACCATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT	180
Db	173	GTCAGCATCACTTGTCGGGCGAGTCAGGCTATTGGCAACTGGTTAGCCTGGTATCAACAG	232
Qy	181	AAACCAGGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC	240
Db	233	AGACCAGGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGCGTC	292
Qy	241	CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG	300
Db	293	CCTTCCAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG	352
Qy	301	CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT	360
Db	353	CAGCCGGAGGATTTTGGAATTTACTATTGTCAACAGGCTAACAGTGTCCCTTTCAC TTTC	412
Qy	361	GGCCAGGGGACCAAGCTGGAGATCAAAC	388
Db	413	GGCCCTGGGACCACAGTGGATATCAAAC	440

Search completed: December 2, 2004, 20:56:28
Job time : 2022.63 secs

GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 12:19:02 ; Search time 2471.59 Seconds
(without alignments)
8839.572 Million cell updates/sec

Title: US-08-728-463B-207
Perfect score: 462
Sequence: 1 ATGGGGTCAACCGCCATCCT.....CACCTCCTCCAAGAAGCTT 462

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 4526729 seqs, 23644849745 residues

Total number of hits satisfying chosen parameters: 9053458

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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2: gb_htg:*
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8: gb_pl:*
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12: gb_sy:*
13: gb_un:*
14: gb_vi:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Result		Query					
No.	Score	Match	Length	DB	ID	Description	
1	462	100.0	462	6	AR161376	AR161376 Sequence	
2	462	100.0	462	6	AR369969	AR369969 Sequence	
3	462	100.0	462	6	BD096603	BD096603 Transgeni	

4	390.4	84.5	489	9	AF348833	AF348833 Homo sapi
5	390.4	84.5	490	9	AF348830	AF348830 Homo sapi
6	390.4	84.5	490	9	AF348831	AF348831 Homo sapi
7	384	83.1	488	9	AF348834	AF348834 Homo sapi
8	382.4	82.8	488	9	AF348829	AF348829 Homo sapi
9	382.4	82.8	490	9	AF348832	AF348832 Homo sapi
10	380.8	82.4	408	9	HSVHID7	Z47219 H.sapiens m
11	377	81.6	438	6	BD015542	BD015542 Human mon
12	377	81.6	438	6	BD094920	BD094920 Human mon
13	368	79.7	489	9	AF348835	AF348835 Homo sapi
14	366.8	79.4	440	9	AF052379	AF052379 Homo sapi
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16	363.2	78.6	489	9	AF348828	AF348828 Homo sapi
17	361.6	78.3	486	9	AY393198	AY393198 Homo sapi
18	360	77.9	426	9	AF062214	AF062214 Homo sapi
19	358.6	77.6	489	9	AF397316	AF397316 Callithri
20	357.4	77.4	423	9	AY190828	AY190828 Homo sapi
21	356.8	77.2	492	9	AY393204	AY393204 Homo sapi
22	355.6	77.0	498	9	AY393196	AY393196 Homo sapi
23	355	76.8	429	9	HSIGHXX31	X65913 H.sapiens m
24	352.8	76.4	513	9	AY393084	AY393084 Homo sapi
25	352.8	76.4	513	9	AY393087	AY393087 Homo sapi
26	352.8	76.4	513	9	AY393097	AY393097 Homo sapi
27	351.8	76.1	489	9	AY393188	AY393188 Homo sapi
28	351.2	76.0	417	9	AF416364	AF416364 Papio cyn
29	350.8	75.9	880	9	HSIGVH006	X58402 Human CB-4
30	350.8	75.9	937	9	HSIGVH004	X58400 Human EBV-2
31	350.8	75.9	949	9	HSIGVH005	X58401 Human L2-9
32	350.8	75.9	967	9	HSIGVH001	X58397 Human CLL-1
33	349.8	75.7	429	9	AY392964	AY392964 Homo sapi
34	349.6	75.7	414	9	AF062154	AF062154 Homo sapi
35	349.6	75.7	513	9	AY393088	AY393088 Homo sapi
36	349	75.5	495	9	AF397359	AF397359 Callithri
37	347	75.1	489	9	AY393189	AY393189 Homo sapi
38	347	75.1	498	9	AY393085	AY393085 Homo sapi
39	346.4	75.0	513	9	AY393094	AY393094 Homo sapi
40	346.2	74.9	501	9	AY393194	AY393194 Homo sapi
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42	345.6	74.8	500	9	AF397348	AF397348 Callithri
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ALIGNMENTS

RESULT 1

AR161376

LOCUS AR161376 462 bp DNA linear PAT 17-OCT-2001

DEFINITION Sequence 359 from patent US 6255458.

ACCESSION AR161376

VERSION AR161376.1 GI:16227236

KEYWORDS

SOURCE Unknown.

ORGANISM Unknown.

Unclassified.

REFERENCE 1 (bases 1 to 462)
AUTHORS Lonberg,N. and Kay,R.M.
TITLE High affinity human antibodies and human antibodies against digoxin
JOURNAL Patent: US 6255458-A 359 03-JUL-2001;
FEATURES Location/Qualifiers
source 1. .462
/organism="unknown"
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ORIGIN

Query Match 100.0%; Score 462; DB 6; Length 462;
Best Local Similarity 100.0%; Pred. No. 9.1e-101;
Matches 462; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      121 TGTAAGGGTTC TGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
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Db      121 TGTAAGGGTTC TGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180

Qy      181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
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Db      301 CAGTGGAGCAGCCTGAAGGCCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360

Qy      361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420
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Qy      421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462
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RESULT 2

AR369969

LOCUS AR369969 462 bp DNA linear PAT 12-SEP-2003

DEFINITION Sequence 207 from patent US 6300129.

ACCESSION AR369969

VERSION AR369969.1 GI:34606409

KEYWORDS

SOURCE Unknown.

ORGANISM Unknown.

Unclassified.

REFERENCE 1 (bases 1 to 462)
AUTHORS Lonberg,N. and Kay,R.M.
TITLE Transgenic non-human animals for producing heterologous antibodies
JOURNAL Patent: US 6300129-A 207 09-OCT-2001;
FEATURES Location/Qualifiers
source 1..462
/organism="unknown"
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ORIGIN

Query Match 100.0%; Score 462; DB 6; Length 462;
Best Local Similarity 100.0%; Pred. No. 9.1e-101;
Matches 462; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
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Db 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
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Qy 421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462
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RESULT 3
BD096603
LOCUS BD096603 462 bp DNA linear PAT 27-AUG-2002
DEFINITION Transgenic non-human animals capable of producing heterologous antibodies.
ACCESSION BD096603
VERSION BD096603.1 GI:22642191
KEYWORDS JP 2001527386-A/130.
SOURCE unidentified
ORGANISM unidentified

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REFERENCE 1 (bases 1 to 462)
AUTHORS Lonberg,N. and Kay,R.M.
TITLE Transgenic non-human animals capable of producing heterologous
antibodies
JOURNAL Patent: JP 2001527386-A 130 25-DEC-2001;
GENPHARM INTERNATIONAL
COMMENT OS Unidentified
PN JP 2001527386-A/130
PD 25-DEC-2001
PF 01-DEC-1997 JP 1998525687
PR 02-DEC-1996 US 08/758417
PI NILS LONBERG,ROBERT M KAY
PC C12N5/00,C12N5/28,C12N5/24,C12N5/10,C07K16/00,A61K39/00 CC
Strandedness: Single;
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CC Transgenic non-human animals capable of
producing heterologous
CC antibodies
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FT /organism='Unidentified'.

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FEATURES Location/Qualifiers
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ORIGIN

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Query Match 100.0%; Score 462; DB 6; Length 462;
Best Local Similarity 100.0%; Pred. No. 9.1e-101;
Matches 462; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
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Db 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
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Qy 181 GGGAAAGGCCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
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Db 181 GGGAAAGGCCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240

Qy 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGGECTACCTG 300
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Db 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGGECTACCTG 300

Qy 301 CAGTGGAGCAGCCTGAAGGCCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
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 Db 361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420

Qy 421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462
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RESULT 4

AF348833

LOCUS AF348833 489 bp mRNA linear PRI 29-MAR-2001

DEFINITION Homo sapiens clone 26P-23 immunoglobulin heavy chain variable region mRNA, partial cds.

ACCESSION AF348833

VERSION AF348833.1 GI:13487746

KEYWORDS

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 489)

AUTHORS Arce,E., Jackson,D.G., Gill,M.A., Bennett,L.B., Banchereau,J. and Pascual,V.

TITLE Increased Frequency of Pre-Germinal Center B Cells and Plasmablasts in the Blood of Children with Systemic Lupus Erythematosus

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 489)

AUTHORS Jackson,D.G., Arce,E. and Pascual,V.

TITLE Direct Submission

JOURNAL Submitted (12-FEB-2001) Pediatrics, UT Southwestern Medical Center, 5323 Harry Hines Blvd., Dallas, TX 75390, USA

FEATURES Location/Qualifiers

source

1. .489

/organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"

/chromosome="14"

/clone="26P-23"

/cell_type="peripheral B cell; plasmablast"

/note="from a patient with systemic lupus erythematosus"

CDS

1. .>489

/note="VH 5-51"

/codon_start=1

/product="immunoglobulin heavy chain variable region"

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GGT"

ORIGIN

Query Match 84.5%; Score 390.4; DB 9; Length 489;

Best Local Similarity 91.3%; Pred. No. 1.6e-83;

Matches 431; Conservative 0; Mismatches 26; Indels 15; Gaps 1;

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 Db 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGGTGTTCTCCAAGGAGTCTGTGCCGAG 60

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 Db 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
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 Db 121 TGTAAGGGTTCTGGATACAGCTTTACACCTACTGGATCGGCTGGGTGCGCCAGGTGCCC 180

Qy 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
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 Db 181 GGGAAAGGCCTGGAGTGGATGACGATCATCTATCCTGGTGACTCTGATACCAGATACAGC 240

Qy 241 CCGTCCTTCCAAGGCCAGGTCAACATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
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 Db 241 CCGTCCTTCCAAGGCCAGGTCAACATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300

Qy 301 CAGTGGAGCAGCCTGAAGGCCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
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 Db 301 CAGTGGAGCAGCCTGAAGGCCCTCGGACACCGCCATGTATTACTGTGCGAGGTCCCCTGGG 360

Qy 361 GG-----CCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 405
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 Db 361 GGATTACGTTTGGCGGTACGCTTCCTTCACTGGGGCCAGGGCACCTGGTCACCGCCTCC 420

Qy 406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
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 Db 421 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 472

RESULT 5

AF348830

LOCUS AF348830 490 bp mRNA linear PRI 29-MAR-2001

DEFINITION Homo sapiens clone 26P-3; 26P-26 immunoglobulin heavy chain variable region mRNA, partial cds.

ACCESSION AF348830

VERSION AF348830.1 GI:13487740

KEYWORDS

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 490)

AUTHORS Arce,E., Jackson,D.G., Gill,M.A., Bennett,L.B., Banchereau,J. and Pascual,V.

TITLE Increased Frequency of Pre-Germinal Center B Cells and Plasmablasts in the Blood of Children with Systemic Lupus Erythematosus

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 490)

AUTHORS Jackson,D.G., Arce,E. and Pascual,V.

TITLE Direct Submission

JOURNAL Submitted (12-FEB-2001) Pediatrics, UT Southwestern Medical Center, 5323 Harry Hines Blvd., Dallas, TX 75390, USA

FEATURES Location/Qualifiers

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source      1. .490
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            /db_xref="taxon:9606"
            /chromosome="14"
            /clone="26P-3; 26P-26"
            /cell_type="peripheral B cell; plasmablast"
            /note="from a patient with systemic lupus erythematosus"
CDS         1. .>490
            /note="VH 5-51"
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            /product="immunoglobulin heavy chain variable region"
            /protein_id="AAK27702.1"
            /db_xref="GI:13487741"
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ORIGIN

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Query Match      84.5%;   Score 390.4;   DB 9;   Length 490;
Best Local Similarity  91.3%;   Pred. No. 1.6e-83;
Matches 431;   Conservative    0;   Mismatches 26;   Indels 15;   Gaps 1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
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Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db    121 TGTAAGGGTTCTGGATACAACTTTGCCGGCTTCTGGATCGGCTGGGTGCGCCAGATGCCC 180

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
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Db    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTAATGCCAGATACAGC 240

Qy    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
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Db    301 CAGTGGAGCAGCCTGCAGGCCTCGGACACCGCCATGTATTACTGTGCGAGGTCCCCTGGG 360

Qy    361 GG-----CCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 405
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Db    361 GGATTACGTTTGGCGGTACGCTTCTTCACTGGGGCCAGGGCACCCCTGGTCACCGTCTCC 420

Qy    406 TCAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db    421 TCAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 472

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RESULT 6

AF348831

LOCUS AF348831 490 bp mRNA linear PRI 29-MAR-2001

DEFINITION Homo sapiens clone 26P-16 immunoglobulin heavy chain variable region mRNA, partial cds.

ACCESSION AF348831

VERSION AF348831.1 GI:13487742

KEYWORDS

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 490)

AUTHORS Arce,E., Jackson,D.G., Gill,M.A., Bennett,L.B., Banchereau,J. and Pascual,V.

TITLE Increased Frequency of Pre-Germinal Center B Cells and Plasmablasts in the Blood of Children with Systemic Lupus Erythematosus

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 490)

AUTHORS Jackson,D.G., Arce,E. and Pascual,V.

TITLE Direct Submission

JOURNAL Submitted (12-FEB-2001) Pediatrics, UT Southwestern Medical Center, 5323 Harry Hines Blvd., Dallas, TX 75390, USA

FEATURES Location/Qualifiers

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1. .490

/organism="Homo sapiens"

/mol_type="mRNA"

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/chromosome="14"

/clone="26P-16"

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/note="from a patient with systemic lupus erythematosus"

CDS

1. .>490

/note="VH 5-51"

/codon_start=1

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GGT"

ORIGIN

Query Match 84.5%; Score 390.4; DB 9; Length 490;

Best Local Similarity 91.3%; Pred. No. 1.6e-83;

Matches 431; Conservative 0; Mismatches 26; Indels 15; Gaps 1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
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Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGGTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
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Db     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
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Db      121 TGTAAGGGTCTGGATACAGGTTTACCACCTACTGGATCGGCTGGGTGCGCCAGGTGCCC 180
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      |||
Db      181 GGGAAAGGCCCTGGAGTGGATGACGATCATCTATCCTGGTGACTCTGATACCAGATACAGC 240
Qy      241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db      241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
Qy      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
      |||
Db      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGGTCCCCTGGG 360
Qy      361 GG-----CCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCAACGCTCTCC 405
      ||
Db      361 GGATTACGTTTGGCGGTACGCTTCCTTCACTGGGGCCAGGGCACCTGGTCAACGCCTCC 420
Qy      406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCTCCTCCAAGA 457
      |||
Db      421 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCTCCTCCAAGA 472

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RESULT 7

AF348834

LOCUS AF348834 488 bp mRNA linear PRI 29-MAR-2001

DEFINITION Homo sapiens clone 26P-25 immunoglobulin heavy chain variable region mRNA, partial cds.

ACCESSION AF348834

VERSION AF348834.1 GI:13487748

KEYWORDS

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 488)

AUTHORS Arce,E., Jackson,D.G., Gill,M.A., Bennett,L.B., Banchereau,J. and Pascual,V.

TITLE Increased Frequency of Pre-Germinal Center B Cells and Plasmablasts in the Blood of Children with Systemic Lupus Erythematosus

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 488)

AUTHORS Jackson,D.G., Arce,E. and Pascual,V.

TITLE Direct Submission

JOURNAL Submitted (12-FEB-2001) Pediatrics, UT Southwestern Medical Center, 5323 Harry Hines Blvd., Dallas, TX 75390, USA

FEATURES Location/Qualifiers

source 1. .488

/organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"

/chromosome="14"

/clone="26P-25"

/cell_type="peripheral B cell; plasmablast"

/note="from a patient with systemic lupus erythematosus"

CDS 1. .>488

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ORIGIN

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Query Match          83.1%;  Score 384;  DB 9;  Length 488;
Best Local Similarity 90.5%;  Pred. No. 5.7e-82;
Matches 427;  Conservative 0;  Mismatches 30;  Indels 15;  Gaps 1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
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Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
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Db     61 GTGCAGTTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGACTCTCTGAAGATCTCC 120

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
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Db    121 TGTAAGGGTTCTGGATACAGCTTTACCACTACTGGATCGGCTGGGTGCGCCAGGTGCCC 180

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
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Db    181 GGGAAAGACCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTAATGCCAGATACAGC 240

Qy    241 CCGTCCTTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
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Db    241 CCGTCCTTTCCAAGGCCAGATCACAATCTCAGCCGACAAGTCCATCAACACCGCCTACCTG 300

Qy    301 CAGTGGAGCAGCCTGAAGGCCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
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Db    301 CAGTGGAGCAGCCTGCAGGCCCTCGGACACCGCCATGTATTACTGTGCGAGGTCCCCTGGG 360

Qy    361 GG-----CCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 405
      ||
Db    361 GGATTACGTTTGGCGGTACGCTTCCTTCACTGGGGCCAGGGCACCCCTGGTCACCGTCTCC 420

Qy    406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db    421 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 472

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RESULT 8

AF348829

LOCUS AF348829 488 bp mRNA linear PRI 29-MAR-2001

DEFINITION Homo sapiens clone 26P-2 immunoglobulin heavy chain variable region mRNA, partial cds.

ACCESSION AF348829

VERSION AF348829.1 GI:13487738

KEYWORDS

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 488)

AUTHORS Arce,E., Jackson,D.G., Gill,M.A.; Bennett,L.B., Banchereau,J. and Pascual,V.

TITLE Increased Frequency of Pre-Germinal Center B Cells and Plasmablasts in the Blood of Children with Systemic Lupus Erythematosus

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 488)

AUTHORS Jackson,D.G., Arce,E. and Pascual,V.

TITLE Direct Submission

JOURNAL Submitted (12-FEB-2001) Pediatrics, UT Southwestern Medical Center, 5323 Harry Hines Blvd., Dallas, TX 75390, USA

FEATURES Location/Qualifiers

source 1. .488
 /organism="Homo sapiens"
 /mol_type="mRNA"
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 /cell_type="peripheral B cell; plasmablast"
 /note="from a patient with systemic lupus erythematosus"

CDS 1. .>488
 /note="VH 5-51"
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ORIGIN

Query Match 82.8%; Score 382.4; DB 9; Length 488;
 Best Local Similarity 90.3%; Pred. No. 1.4e-81;
 Matches 426; Conservative 0; Mismatches 31; Indels 15; Gaps 1;

Qy	1	ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG	60
Db	1	ATGGGGTCAACCGCCATCCTCGCCCTCCCCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG	60
Qy	61	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGAGTCTCTGAAGATCTCC	120
Db	61	GTGCAGTTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGAGTCTCTGAAGATTTC	120
Qy	121	TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC	180
Db	121	TGTAAGGGTTCTGGATACAGTTTTGCCATCTACTGGATCGGCTGGGTGCGCCACTTGCCC	180
Qy	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC	240
Db	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTAATGCCAGATACAGC	240
Qy	241	CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG	300

Db 241 CCGTCCTTCCAAGGCCAGATCACAAATCTCAGCCGACAAGTCCATCAACACCGCCTACCTG 300

Qy 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360

Db 301 CAGTGGAGCAGCCTGCAGGCCTCGGACACCGCCATGTATTACTGTGCGAGGTCCCTTGGG 360

Qy 361 GG-----CCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 405

Db 361 GGATTACGTTTGGCGGTACGCTTCCTTCACTGGGGCCAGGGCACCTGGTCACCGTCTCC 420

Qy 406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457

Db 421 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 472

RESULT 9

AF348832

LOCUS AF348832 490 bp mRNA linear PRI 29-MAR-2001

DEFINITION Homo sapiens clone 26P-20 immunoglobulin heavy chain variable region mRNA, partial cds.

ACCESSION AF348832

VERSION AF348832.1 GI:13487744

KEYWORDS

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 490)

AUTHORS Arce, E., Jackson, D.G., Gill, M.A., Bennett, L.B., Banchereau, J. and Pascual, V.

TITLE Increased Frequency of Pre-Germinal Center B Cells and Plasmablasts in the Blood of Children with Systemic Lupus Erythematosus

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 490)

AUTHORS Jackson, D.G., Arce, E. and Pascual, V.

TITLE Direct Submission

JOURNAL Submitted (12-FEB-2001) Pediatrics, UT Southwestern Medical Center,
5323 Harry Hines Blvd., Dallas, TX 75390, USA

FEATURES	Location/Qualifiers
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/mol type="mRNA"
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/note="from a patient with systemic lupus erythematosus"

CDS

1. .>490

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GGT"

ORIGIN

Query Match 82.8%; Score 382.4; DB 9; Length 490;
 Best Local Similarity 90.3%; Pred. No. 1.4e-81;
 Matches 426; Conservative 0; Mismatches 31; Indels 15; Gaps 1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
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Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGCGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
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Db     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATTTC 120

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCC 180
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Db    121 TGTAAGGGTTCTGGATACAGTTTTGCCATCTACTGGATCGGCTGGGTGCGCCAGGTGCC 180

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
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Db    181 GGGAAAGGCCTGGAGTGGATGACGATCATCTATCCTGGTGACTCTAATGCCAGATACAGC 240

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Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
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Qy    361 GG-----CCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 405
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Db    361 GGATTACGTTTGGCGGTACGCTTCCTTCACTGGGGCCAGGGCACCTGGTCACCGTCTCC 420

Qy    406 TCAGCCTCCACCAAGGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
        |||||||||||||||||| ||||||||||||||||
Db    421 TCAGCCTCCACCAAGGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 472
  
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RESULT 10

HSVHID7

LOCUS HSVHID7 408 bp mRNA linear PRI 15-FEB-1996

DEFINITION H.sapiens mRNA for immunoglobulin heavy chain V-region (clone CDN3ID7).

ACCESSION Z47219

VERSION Z47219.1 GI:1197322

KEYWORDS immunoglobulin; immunoglobulin heavy chain; variable region.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 408)

AUTHORS Demaison,C., David,D., Letourneur,F., Theze,J., Saragosti,S. and Zouali,M.

TITLE Analysis of human VH gene repertoire expression in peripheral CD19+ B cells

JOURNAL Immunogenetics 42 (5), 342-352 (1995)

MEDLINE 96006568
PUBMED 7590967
REFERENCE 2 (bases 1 to 113)
AUTHORS Demaison,C., David,D., Letourneur,F., Zouali,M., Saragosti,S. and Theze,J.
TITLE A cDNA/anchor-PCR approach to analyse the human VH gene repertoire expressed by peripheral CD19+ B cells reveals a strong bias usage
JOURNAL Unpublished
REFERENCE 3 (bases 1 to 408)
AUTHORS Demaison,C.
TITLE Direct Submission
JOURNAL Submitted (16-DEC-1994) Christophe Demaison, Immunologie, Unite d'Immunogenetique Cellulaire-institut Pasteur, 25, rue du Docteur Roux, Paris, 75015, FRANCE

FEATURES Location/Qualifiers
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/clone="CDN3ID7"
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/tissue_type="peripheral blood lymphocyte"
/dev_stage="adult"
sig_peptide 1. .57
V_region 58. .408
/product="immunoglobulin variable region"

ORIGIN

Query Match 82.4%; Score 380.8; DB 9; Length 408;
Best Local Similarity 95.8%; Pred. No. 3.4e-81;
Matches 391; Conservative 0; Mismatches 17; Indels 0; Gaps 0;

Qy	1	ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG	60
Db	1	ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGTTGTTCTCCAAGGAGTCTGTGCCGAG	60
Qy	61	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAGCCCGGGAGTCTCTGAAGATCTCC	120
Db	61	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAGCCCGGGAGTCTCTGAAGATCTCC	120
Qy	121	TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC	180
Db	121	TGTAAGGGTTCTGGATACAGCTTTACAGCTACTGGATCGGCTGGGTGCGCCAGATGCCC	180
Qy	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC	240
Db	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGC	240
Qy	241	CCGTCTTTCCAAGGCCAGGTCAACATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG	300
Db	241	CCGTCTTCTTAGGCCAGGTCAACATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG	300
Qy	301	CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG	360
Db	301	CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAAGGACTGCC	360
Qy	361	GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCA	408

Db 361 CACCACCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCA 408

RESULT 11

BD015542

LOCUS BD015542 438 bp DNA linear PAT 27-AUG-2002

DEFINITION Human monoclonal antibody against TGF-beta-II receptor and medicinal use thereof.

ACCESSION BD015542

VERSION BD015542.1 GI:22556679

KEYWORDS JP 2001206899-A/4.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 438)

AUTHORS Sakamoto,S. and Kamada,M.

TITLE Human monoclonal antibody against TGF-beta-II receptor and medicinal use thereof

JOURNAL Patent: JP 2001206899-A 4 31-JUL-2001;
JAPAN TOBACCO INC

COMMENT OS Homo sapiens (human)

PN JP 2001206899-A/4

PD 31-JUL-2001

PF 08-NOV-2000 JP 2000340216

PI SHINJI SAKAMOTO,MASAFUMI KAMADA

PC C07K16/28,A61K39/395,A61P1/16,A61P9/04,A61P9/10,A61P9/10, PC
A61P11/00,

PC A61P13/12,A61P17/00,A61P17/02,A61P17/04,A61P17/06,A61P19/02,

PC A61P43/00,

PC C12N5/10,C12N15/02//C12P21/08

CC Human monoclonal antibody against TGF-beta-II receptor and CC
medicinal use

CC thereof

FH Key Location/Qualifiers

FT CDS (1)..(438).

FEATURES Location/Qualifiers

source

1..438

/organism="Homo sapiens"

/mol_type="genomic DNA"

/db_xref="taxon:9606"

ORIGIN

Query Match 81.6%; Score 377; DB 6; Length 438;

Best Local Similarity 93.4%; Pred. No. 2.8e-80;

Matches 408; Conservative 0; Mismatches 20; Indels 9; Gaps 1;

Qy 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Db 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Db 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180

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Qy      361 -----GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCC 411
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Db      361 TGTAGTGGTGGTAGCTGCTACCTCTGGGGCCAGGGAACCTGGTCACCGTCTCCTCAGCT 420
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Qy      412 TCCACCAAGGGCCCATC 428
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Db      421 TCCACCAAGGGCCCATC 437

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RESULT 12

BD094920

LCCUS BD094920 438 bp DNA linear PAT 27-AUG-2002

DEFINITION Human monoclonal antibody for human TGF-beta type II receptor and pharmaceutical use thereof.

ACCESSION BD094920

VERSION BD094920.1 GI:22640508

KEYWORDS WO 0136642-A/4.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 438)

AUTHORS Sakamoto, S. and Kamada, M.

TITLE Human monoclonal antibody for human TGF-beta type II receptor and pharmaceutical use thereof

JOURNAL Patent: WO 0136642-A 4 25-MAY-2001;

JAPAN TOBACCO INC, SHINJI SAKAMOTO, MASAFUMI KAMADA

COMMENT OS Homo sapiens (human)

PN WO 0136642-A/4

PD 25-MAY-2001

PF 17-NOV-2000 WO 2000JP008129

PR 18-NOV-1999 JP 99P 328681, 08-NOV-2000 JP 00P 340216 PI

SHINJI SAKAMOTO, MASAFUMI KAMADA

PC C12N15/13, C07K16/28, C12N5/16, A61K39/395, A61P43/00, A61P13/12,

PC A61P11/00,

PC A61P1/16, A61P9/08, A61P9/10, A61P17/06, A61P17/04, A61P17/02, PC

A61P19/02,

PC A61P29/00

CC Human monoclonal antibody for human TGF-beta type II receptor

CC and

CC pharmaceutical use thereof

FH Key Location/Qualifiers

FT CDS (1)..(438).
 FEATURES Location/Qualifiers
 source 1..438
 /organism="Homo sapiens"
 /mol_type="genomic DNA"
 /db_xref="taxon:9606"

ORIGIN

Query Match 81.6%; Score 377; DB 6; Length 438;
 Best Local Similarity 93.4%; Pred. No. 2.8e-80;
 Matches 408; Conservative 0; Mismatches 20; Indels 9; Gaps 1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
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Qy    361 -----GGCCTCTTTGACTACTGGGGCCAGGGAACCTGGTCACCGTCTCCTCAGCC 411
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Db    361 TGTAGTGGTGGTAGCTGCTACCTCTGGGGCCAGGGAACCTGGTCACCGTCTCCTCAGCT 420

Qy    412 TCCACCAAGGGCCCATC 428
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Db    421 TCCACCAAGGGCCCATC 437
  
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RESULT 13

AF348835

LOCUS AF348835 489 bp mRNA linear PRI 29-MAR-2001

DEFINITION Homo sapiens clone 26-23c immunoglobulin heavy chain variable region mRNA, partial cds.

ACCESSION AF348835

VERSION AF348835.1 GI:13487750

KEYWORDS

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 489)
AUTHORS Arce,E., Jackson,D.G., Gill,M.A., Bennett,L.B., Banchereau,J. and Pascual,V.
TITLE Increased Frequency of Pre-Germinal Center B Cells and Plasmablasts in the Blood of Children with Systemic Lupus Erythematosus
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 489)
AUTHORS Jackson,D.G., Arce,E. and Pascual,V.
TITLE Direct Submission
JOURNAL Submitted (12-FEB-2001) Pediatrics, UT Southwestern Medical Center, 5323 Harry Hines Blvd., Dallas, TX 75390, USA

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ORIGIN

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Best Local Similarity 88.3%; Pred. No. 4.1e-78;
Matches 417; Conservative 0; Mismatches 40; Indels 15; Gaps 1;

Qy 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
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Db 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
Qy 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
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Db 61 GTGCAGTTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGCGAGTCTCTGACTATCTCT 120
Qy 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
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Db 121 TGTGAGGGTTCTGGATATAAGTTTGCCTCCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
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||||| ||||| |||||
Db 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTAATGCCAGATACAGC 240
Qy 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
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Db 241 CCGTCCTTCCAAGGCCAGGTCATCATCTCAGCCGACAAGGCCATGAACACCGCCTTCTTA 300
Qy 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360

Query Match 79.4%; Score 366.8; DB 9; Length 440;
 Best Local Similarity 91.4%; Pred. No. 8e-78;
 Matches 402; Conservative 0; Mismatches 32; Indels 6; Gaps 1;

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Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
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Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
        ||||| |||||||||||||||||||||||| |||||||||||||||||||||||| |||||
Db    121 TGTCAGGGTTCTGGATACAGCTTTACCAACTACTGGATCGGCTGGGTGCGTCAGATGCCC 180

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGA CTCTGATACCACATACAGC 240
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Qy    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
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Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
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Qy    361 GG-----CCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCTCCTCAGCCTCC 414
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Db    361 GGGGCTTCTCGCGATGACTACTGGGGCCAGGGAACCCCGGTACACCGTCTCCTCTGCCTCC 420

Qy    415 ACCAAGGGCCCATCGGTCTT 434
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Db    421 ACCAAGGGCCCATCCGTCTT 440
  
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RESULT 15
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 DEFINITION Homo sapiens clone RA702-G5-7.fa immunoglobulin heavy chain mRNA,
 partial cds.
 ACCESSION AY393096
 VERSION AY393096.1 GI:46254123
 KEYWORDS .
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 REFERENCE 1 (bases 1 to 501)
 AUTHORS Miura,Y., Chu,C.C., Dines,D.M., Asnis,S.E., Furie,R.A. and
 Chiorazzi,N.
 TITLE Diversification of the Ig variable region gene repertoire of
 synovial B lymphocytes by nucleotide insertion and deletion
 JOURNAL Mol. Med. 9 (5-8), 166-174 (2003)
 MEDLINE 22933091
 PUBMED 14571324

REFERENCE 2 (bases 1 to 501)
 AUTHORS Miura,Y., Chu,C.C., Dines,D.M., Krauss,E.S., Asnis,S.E., Furie,R.A.
 and Chiorazzi,N.
 TITLE Direct Submission
 JOURNAL Submitted (17-SEP-2003) Center for Immunology and Inflammation,
 North Shore - LIJ Research Institute, 350 Community Drive,
 Manhasset, NY 11030, USA

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 LVKDYFP"

ORIGIN

Query Match 79.3%; Score 366.4; DB 9; Length 501;
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 Matches 407; Conservative 0; Mismatches 26; Indels 15; Gaps 1;

Qy	25	CTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAGGTGCAGCTGGTGCAGTCTGGAGCA	84
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Qy	85	GAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTT	144
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Qy	145	ACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCCGGGAAGGCCTGGAGTGGATGGGG	204
Db	121	ACCAGCTACTGGATCGGCTGGGTGCGCCAGATGCCCGGGAAGGCCTGGAGTGGATGGGA	180
Qy	205	ATCATCTATCCTGGTGACTCTGATACCACATACAGCCCGTCCTTCCAAGGCCAGGTCACC	264
Db	181	ATCGTCTATCCTGGTGACTCTCATATCAAATACAGTCCGTCCTTCCAAGGCCAGGTCACC	240
Qy	265	ATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCG	324
Db	241	ATCTCAGCCGACAAGTCCCTCAGTACCGCCTACCTGCAGTGGATCAGCCTGAAGGCCTCG	300
Qy	325	GACACCGCCATGTATTACTGTGCGAGAGACCA-----ACTGGGCCTCTTT	369
Db	301	GACACCGCCATGTATTATTGTGCGAGGTTCCATAAGTTTAATATTGTTGTCGGCCTCTTT	360
Qy	370	GACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCG	429

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Db      361 GACTACTGGGGCCAGGGAACCCTGGTCAACGTCTCCTCAGCTTCCACCAAGGGCCCCATCG 420
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Qy      430 GTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
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Db      421 GTCTTCCCCCTGGCGCCCTGCTCCAGGA 448

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Job time : 2473.59 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 12:19:02 ; Search time 357.717 Seconds
(without alignments)
6779.752 Million cell updates/sec

Title: US-08-728-463B-207
Perfect score: 462
Sequence: 1 ATGGGGTCAACCGCCATCCT.....CACCTCCTCCAAGAAGCTT 462

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 4134886 seqs, 2624710521 residues

Total number of hits satisfying chosen parameters: 8269772

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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10: geneseqn2003cs:*
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12: geneseqn2004s:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

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5	413.8	89.6	469	8	AAD56222	Aad56222 Human AB-	
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7	399.2	86.4	1389	12	ADM41568	Adm41568 Anti-inte	
8	392.8	85.0	1392	12	ADM41570	Adm41570 Anti-inte	
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28	330	71.4	477	12	ADL00462	Adl00462 Human ant	
29	329.4	71.3	1641	10	ADF90760	Adf90760 Human hep	
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34	314.2	68.0	348	6	ABA05500	Aba05500 Human mon	
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39	309.2	66.9	351	6	AAL43585	Aal43585 Dig1 anti	
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ALIGNMENTS

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ID AAT73442 standard; DNA; 462 BP.
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 AC AAT73442;
 XX
 DT 03-DEC-1997 (first entry)
 XX
 DE Human immunoglobulin light chain variable region partial transcript.
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 KW Ig; affinity constant; human; antigen; hybridoma; B cell; transgene;
 KW transgenic; mouse; CD4; antibody; autoimmune; inflammatory;
 KW transplant rejection; ss.
 XX
 OS Homo sapiens.
 XX
 PN WO9713852-A1.
 XX
 PD 17-APR-1997.
 XX
 PF 10-OCT-1996; 96WO-US016433.
 XX
 PR 10-OCT-1995; 95US-00544404.
 XX
 PA (GENP-) GENPHARM INT INC.
 XX
 PI Lonberg N, Kay RM;
 XX
 DR WPI; 1997-235888/21.
 XX
 PT Novel anti-CD4 antibody produced by transgenic mice - used in the
 PT treatment of auto-immune disease etc.
 XX
 PS Claim 44; Page 255-256; 396pp; English.
 XX
 CC A novel composition has been developed which comprises an immunoglobulin
 CC (Ig) having an affinity constant (Ka) of at least 2 multiply 1000000000 M
 CC -1 for binding to a predetermined human antigen. The present sequence
 CC represents a human light chain variable region partial nucleotide
 CC sequence, 4D1 gamma, which encodes an amino acid sequence from a claimed
 CC immunoglobulin that specifically binds human CD4. The anti-CD4 antibodies
 CC may be used in therapeutic and diagnostic applications, especially for
 CC the treatment of human diseases. These antibodies reduce activity of CD4
 CC cells and reduce undesirable autoimmune reactions, inflammatory response
 CC and transplant rejection. Transgenic animals are capable of producing
 CC heterologous antibodies of multiple isotypes by undergoing isotype
 CC switching. These animals produce a first Ig type that is necessary for
 CC antigen-stimulated B-cell maturation and can switch to encode and produce
 CC one or more subsequent heterologous isotypes
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Query Match 100.0%; Score 462; DB 2; Length 462;
 Best Local Similarity 100.0%; Pred. No. 2.6e-102;
 Matches 462; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
 |||
 Db 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360

Qy 361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420
 |||
 Db 361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420

Qy 421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462
 |||
 Db 421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462

RESULT 2

AAV39240

ID AAV39240 standard; DNA; 462 BP.

XX

AC AAV39240;

XX

DT 18-DEC-1998 (first entry)

XX

DE Functional gamma transcript isolated from transgenic cell line 4D1.

XX

KW Transgenic animal; human heterologous antibody; transgene;

KW isotype switching; neutrophil efflux; reperfusion injury; CD4 binding;

KW autoimmune reaction; inflammatory response; transplant rejection;

KW acid induced lung injury; acute adult respiratory distress syndrome;

KW ARDS; vasculitis; septic shock; allergic reaction; asthma;

KW cystic fibrosis; ss.

XX

OS Synthetic.

OS Homo sapiens.

OS Mus sp.

XX

PN WO9824884-A1.

XX

PD 11-JUN-1998.

XX

PF 01-DEC-1997; 97WO-US021803.

XX

XX

XX

XX

XX

XX

XX

XX

Best Local Similarity 100.0%; Pred. No. 2.6e-102;

MASSACHUSETTS, 1927, CONSERVATION

Dk

Dk

Db

Dh

Db 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240

Qy 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
 |||
 Db 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
 Qy 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
 |||
 Db 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
 Qy 361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420
 |||
 Db 361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420
 Qy 421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462
 |||
 Db 421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462

RÉSULT 3

AAZ21994

ID AAZ21994 standard; DNA; 462 BP.

XX

AC AAZ21994;

XX

DT 24-NOV-1999 (first entry)

XX

DE Partial nucleotide sequence for a functional transcript 4D1-gamma.

XX

KW Transgenic animal; heterologous antibody; hybridoma; B cell;

KW transgenic mouse; human heavy chain transgene; digoxin; PCR primer;

KW human light chain transgene; immortalized cell; immunoglobulin;

KW Shinga-like toxin; autoimmune disease; cancer; infectious disease;

KW transplant rejection; blood disorder; coagulation disorder; ss.

XX

OS Synthetic.

OS Homo sapiens.

XX

PN WO9945962-A1.

XX

PD 16-SEP-1999.

XX

PF 12-MAR-1999; 99WO-US005535.

XX

PR 13-MAR-1998; 98US-00042353.

XX

PA (GENP-) GENPHARM INT INC.

XX

PI Lonberg N, Fishwild DM, Ball WJ;

XX

DR WPI; 1999-551219/46.

XX

PT Novel transgenic non-human animals used to produce heterologous

PT antibodies.

XX

PS Example 41; Page 305; 484pp; English.

XX

CC The specification describes transgenic animals that are capable of

CC producing a heterologous antibody. The antibodies are isolated from a

CC hybridoma, comprising B cells, that is obtained from a transgenic mouse
CC having a genome comprising a human heavy chain transgene and a human
CC light chain transgene. The B cells are fused to immortalized cells
CC suitable for generating a hybridoma, which produces a detectable amount
CC of an immunoglobulin that specifically binds digoxin or Shinga-like
CC toxin. B cells from transgenic animals can be used to generate hybridomas
CC expressing monoclonal high affinity human sequence antibodies. Antibodies
CC produced from the transgenic animals of the invention can be used to
CC treat human diseases, e.g. autoimmune diseases, cancer, infectious
CC disease, transplant rejection, blood disorders such as coagulation
CC disorders and other diseases. The present sequence represents a partial
CC nucleotide sequence for a functional transcript used in the course of the
CC invention

XX

SQ Sequence 462 BP; 91 A; 148 C; 129 G; 94 T; 0 U; 0 Other;

Query Match 100.0%; Score 462; DB 2; Length 462;
Best Local Similarity 100.0%; Pred. No. 2.6e-102;
Matches 462; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG	60
Db	1	ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG	60
Qy	61	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC	120
Db	61	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC	120
Qy	121	TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC	180
Db	121	TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC	180
Qy	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC	240
Db	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC	240
Qy	241	CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG	300
Db	241	CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG	300
Qy	301	CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG	360
Db	301	CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG	360
Qy	361	GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG	420
Db	361	GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG	420
Qy	421	GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT	462
Db	421	GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT	462

RESULT 4

AAD56207

ID AAD56207 standard; DNA; 7558 BP.

XX

AC AAD56207;
XX
DT 07-AUG-2003 (first entry)
XX
DE Human AB-PG1-XG1-069 PSMA antibody heavy chain DNA.
XX
KW Human; Prostate specific membrane antigen; carcinoma; sarcoma; cancer;
KW PSMA; melanoma; therapy; N-acetylated alpha-linked acidic dipeptidase;
KW folate hydrolase; dipeptidyl dipeptidase IV; gamma-glutamyl hydrolase;
KW NAALADase; antibody; ds.
XX
OS Homo sapiens.
XX
PN WO2003034903-A2.
XX
PD 01-MAY-2003.
XX
PF 23-OCT-2002; 2002WO-US033944.
XX
PR 23-OCT-2001; 2001US-0335215P.
PR 07-MAR-2002; 2002US-0362747P.
PR 20-SEP-2002; 2002US-0412618P.
XX
PA (PSMA-) PSMA DEV CO LLC.
XX
PI Maddon PJ, Donovan GP, Olson WC, Schuelke N, Gardner J, Ma D;
XX
DR WPI; 2003-403281/38.
XX
PT Novel isolated antibody which binds to epitope on prostate specific
PT membrane antigen, and competitively inhibits binding of second antibody
PT to its target epitope on the antigen, useful for treating prostate
PT cancer.
XX
PS Claim 1; Page 193-197; 238pp; English.
XX
CC The invention relates to an antibody or its antigen-binding fragment
CC which specifically binds to epitope on prostate specific membrane antigen
CC (PSMA), and competitively inhibits the specific binding of a second
CC antibody to its target epitope on PSMA. The invention is useful for
CC diagnosing, treating or preventing PSMA-mediated disease such as prostate
CC cancer or non-prostate cancer bladder chosen from cancer including
CC transitional cell carcinoma, pancreatic cancer including pancreatic duct
CC carcinoma, lung cancer including non-small cell lung carcinoma, kidney
CC cancer including conventional renal cell carcinoma, sarcoma including
CC soft tissue sarcoma, breast cancer including breast carcinoma, brain
CC cancer including glioblastoma multiforme, neuroendocrine carcinoma, colon
CC cancer including colonic carcinoma, testicular cancer including
CC testicular embryonal carcinoma, or melanoma including malignant melanoma.
CC The invention is useful also for inhibiting or enhancing folate hydrolase
CC activity of a folate hydrolase polypeptide, N-acetylated alpha-linked
CC acidic dipeptidase (NAALADase) activity of a NAALADase polypeptide,
CC dipeptidyl dipeptidase IV activity of a dipeptidyl dipeptidase IV
CC polypeptide, gamma-glutamyl hydrolase activity of a gamma-glutamyl
CC hydrolase polypeptide. The present sequence is human PSMA antibody heavy
CC chain DNA
XX

SQ Sequence 7558, BP; 1719 A; 2120 C; 1972 G; 1747 T; 0 U; 0 Other;

Query Match 90.3%; Score 417; DB 8; Length 7558;
Best Local Similarity 95.5%; Pred. No. 3.4e-91;
Matches 442; Conservative 0; Mismatches 15; Indels 6; Gaps 1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      923 ATGGGGTCAACCGTCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 982

Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db      983 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 1042

Qy     121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db    1043 TGTAAGGGTTCTGGATACAGCTTTACAGTTACTGGATCGGCTGGGTGCGCCAGATGCCC 1102

Qy     181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db    1103 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGC 1162

Qy     241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db    1163 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 1222

Qy     301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA-----GAC 354
      |||
Db    1223 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACGGATGGCA 1282

Qy     355 CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 414
      |||
Db    1283 GCAGCTGGCCCCCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 1342

Qy     415 ACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db    1343 ACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCCTCTAGCAAGA 1385
```

RESULT 5

AAD56222

ID AAD56222 standard; DNA; 469 BP.

XX

AC AAD56222;

XX

DT 07-AUG-2003 (first entry)

XX

DE Human AB-PG1-XG1-069 PSMA antibody heavy chain variable region (VH) DNA.

XX

KW Human; Prostate specific membrane antigen; carcinoma; sarcoma; cancer;

KW PSMA; melanoma; therapy; N-acetylated alpha-linked acidic dipeptidase;

KW folate hydrolase; dipeptidyl dipeptidase IV; gamma-glutamyl hydrolase;

KW NAALADase; antibody; heavy chain variable region; VH; gene; ds.

XX

OS Homo sapiens.

XX

FH Key Location/Qualifiers

FT CDS 11. .424
 FT /*tag= a
 FT /product= "PSMA antibody heavy chain variable region"
 FT /note= "No stop codon"
 FT /partial
 XX
 PN WO2003034903-A2.
 XX
 PD 01-MAY-2003.
 XX
 PF 23-OCT-2002; 2002WO-US033944.
 XX
 PR 23-OCT-2001; 2001US-0335215P.
 PR 07-MAR-2002; 2002US-0362747P.
 PR 20-SEP-2002; 2002US-0412618P.
 XX
 PA (PSMA-) PSMA DEV CO LLC.
 XX
 PI Maddon PJ, Donovan GP, Olson WC, Schuelke N, Gardner J, Ma D;
 XX
 DR WPI; 2003-403281/38.
 DR P-PSDB; AAE37207.
 XX
 PT Novel isolated antibody which binds to epitope on prostate specific
 PT membrane antigen, and competitively inhibits binding of second antibody
 PT to its target epitope on the antigen, useful for treating prostate
 PT cancer.
 XX
 PS Claim 20; Page 233-234; 238pp; English.
 XX
 CC The invention relates to an antibody or its antigen-binding fragment
 CC which specifically binds to epitope on prostate specific membrane antigen
 CC (PSMA), and competitively inhibits the specific binding of a second
 CC antibody to its target epitope on PSMA. The invention is useful for
 CC diagnosing, treating or preventing PSMA-mediated disease such as prostate
 CC cancer or non-prostate cancer bladder chosen from cancer including
 CC transitional cell carcinoma, pancreatic cancer including pancreatic duct
 CC carcinoma, lung cancer including non-small cell lung carcinoma, kidney
 CC cancer including conventional renal cell carcinoma, sarcoma including
 CC soft tissue sarcoma, breast cancer including breast carcinoma, brain
 CC cancer including glioblastoma multiforme, neuroendocrine carcinoma, colon
 CC cancer including colonic carcinoma, testicular cancer including
 CC testicular embryonal carcinoma, or melanoma including malignant melanoma.
 CC The invention is useful also for inhibiting or enhancing folate hydrolase
 CC activity of a folate hydrolase polypeptide, N-acetylated alpha-linked
 CC acidic dipeptidase (NAALADase) activity of a NAALADase polypeptide,
 CC dipeptidyl dipeptidase IV activity of a dipeptidyl dipeptidase IV
 CC polypeptide, gamma-glutamyl hydrolase activity of a gamma-glutamyl
 CC hydrolase polypeptide. The present sequence is human PSMA antibody heavy
 CC chain variable region (VH) DNA
 XX
 SQ Sequence 469 BP; 91 A; 149 C; 134 G; 95 T; 0 U; 0 Other;

Query Match 89.6%; Score 413.8; DB 8; Length 469;
 Best Local Similarity 96.0%; Pred. No. 1.3e-90;
 Matches 437; Conservative 0; Mismatches 12; Indels 6; Gaps 1;

QY 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
 |||
 Db 11 ATGGGGTCAACCGTCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 70
 QY 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
 |||
 Db 71 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 130
 QY 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
 |||
 Db 131 TGTAAGGGTTCTGGATACAGCTTTACCGTACTGGATCGGCTGGGTGCGCCAGATGCCC 190
 QY 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
 |||
 Db 191 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGC 250
 QY 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
 |||
 Db 251 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 310
 QY 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA-----GAC 354
 |||
 Db 311 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACGGATGGCA 370
 QY 355 CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 414
 |||
 Db 371 GCAGCTGGCCCCCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 430
 QY 415 ACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTC 449
 |||
 Db 431 ACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTC 465

RESULT 6

ADM41566

ID ADM41566 standard; cDNA; 1401 BP.

XX

AC ADM41566;

XX

DT 03-JUN-2004 (first entry)

XX

DE Anti-interleukin-1 receptor type 1 antibody heavy chain cDNA.

XX

KW Human; monoclonal antibody; antibody; interleukin-1; receptor;
 KW antiasthmatic; antiinflammatory; dermatological; antiallergic;
 KW protozoacide; antirheumatic; antiarthritic; osteopathic; vasotropic;
 KW analgesic; antidiabetic; nephrotropic; antianaemic; nootropic;
 KW anticonvulsant; dermatological; antigout; antiparkinsonian; antidiabetic;
 KW cytostatic; gene; ss.

XX

OS Homo sapiens.

XX

FH Key Location/Qualifiers

FT CDS 1. .1401

FT /*tag= a

FT /product= "Heavy chain"

FT /partial

FT /note= "No stop codon"
XX
PN WO2004022718-A2.
XX
PD 18-MAR-2004.
XX
PF 05-SEP-2003; 2003WO-US027978.
XX
PR 06-SEP-2002; 2002US-0408719P.
XX
PA (AMGE-) AMGEN INC.
XX
PI Varnum B, Vezina C, Witte A, Qian X, Martin F, Huang H;
PI Elliott G;
XX
DR WPI; 2004-248462/23.
DR P-PSDB; ADM41567.
XX
PT Isolated human antibody that specifically binds interleukin-1 receptor
PT type 1 (IL-1R1) useful for treating IL-1 mediated diseases such as
PT rheumatoid arthritis, osteoarthritis and inflammatory conditions.
XX
PS Example 7; SEQ ID NO 31; 179pp; English.
XX
CC The present sequence is that of cDNA encoding a human anti-interleukin-1
CC receptor type 1 (IL-1R1) monoclonal antibody (MAb) heavy chain. The
CC invention provides antibodies that comprise this heavy chain sequence.
CC Human MABs to IL-1R1 were prepared using the HCo7 strain of transgenic
CC mice, which expresses human antibody genes. These mice were immunised
CC with purified recombinant IL-1R1, and splenocytes from immunised mice
CC were fused to a mouse myeloma cell line to generate hybridomas.
CC Hybridomas which secreted a MAB that bound with high avidity to IL-1R1
CC were selected. The MABs inhibit IL-1 signalling by competing with IL-
CC 1beta and IL-1alpha binding to IL-1R. These MABs, as well as single chain
CC antibodies single chain Fv antibodies, Fab antibodies, Fab' antibodies
CC and (Fab')2 antibodies derived from them, are used in methods of treating
CC IL-1 mediated diseases or for detecting the amount of IL-1R1 in a sample.
CC IL-1 mediated diseases include acute pancreatitis, amyotrophic lateral
CC sclerosis, Alzheimer's disease, cachexia, anorexia, asthma,
CC atherosclerosis, autoimmune vasculitis, chronic fatigue syndrome,
CC Clostridium associated illnesses, coronary conditions, cancer including
CC leukaemia and tumour metastasis, diabetes, endometriosis, fever,
CC fibromyalgia, glomerulonephritis, graft versus host disease,
CC osteoarthritis, rheumatoid arthritis, inflammatory eye disease,
CC ischaemia, Kawasaki's disease, learning impairment, lung diseases,
CC multiple sclerosis, myopathy, osteoporosis, pain, Parkinson's disease,
CC periodontal disease, pre-term labour, psoriasis, reperfusion injury,
CC septic shock, side effects of radiation therapy, temporal mandibular
CC joint disease, sleep disturbance, uveitis, or an inflammatory condition
CC resulting from strain, sprain, cartilage damage, trauma, orthopaedic
CC surgery, infection or other disease processes.
XX
SQ Sequence 1401 BP; 318 A; 462 C; 374 G; 247 T; 0 U; 0 Other;

Query Match 87.4%; Score 404; DB 12; Length 1401;
Best Local Similarity 93.9%; Pred. No. 3.6e-88;
Matches 432; Conservative 0; Mismatches 25; Indels 3; Gaps 1;

Qy 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
 ||||||||| ||||||||||||||||||||||||||||||||||||||||
 Db 61 GTGCAGCTGATGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
 |||||||||||||||||||||||||||| || ||||| ||||||||
 Db 121 TGTAAGGGTTCTGGATACAGCTTTTCCTTCCACTGGATCGCCTGGGTGCGCCAGATGCCC 180

Qy 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
 |||||||||||||||||||||||||||||||||||| ||||||||| ||||||||
 Db 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCCATCCTGGTGCTCTGATACCAGATACAGC 240

Qy 241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
 |||||||||||||||||||||||||||||||||||| |||| ||||| |||||
 Db 241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAACCTCCAACAGCGCCACCTACCTG 300

Qy 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA---CCAA 357
 |||||||||||||||||||||||||||||||||||| ||||||||| |||||
 Db 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTTCTGTGCGAGACAAAGGGAA 360

Qy 358 CTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACC 417
 ||||| ||||||||||||||||||||||||||||||||| ||||||||
 Db 361 CTCGACTACTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCTAGTGCCTCCACC 420

Qy 418 AAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
 ||||||||||||||||||||||||||||||||||||
 Db 421 AAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 460

RESULT 7

ADM41568

ID ADM41568 standard; cDNA; 1389 BP.

XX

AC ADM41568;

XX

DT 03-JUN-2004 (first entry)

XX

DE Anti-interleukin-1 receptor type 1 antibody heavy chain cDNA.

XX

KW Human; monoclonal antibody; antibody; interleukin-1; receptor;

KW antiasthmatic; antiinflammatory; dermatological; antiallergic;

KW protozoacide; antirheumatic; antiarthritic; osteopathic; vasotropic;

KW analgesic; antidiabetic; nephrotropic; antianaemic; nootropic;

KW anticonvulsant; dermatological; antigout; antiparkinsonian; antidiabetic;

KW cytostatic; gene; ss.

XX

OS Homo sapiens.

XX

FH Key Location/Qualifiers

FT CDS 1. .1389

FT /*tag= a

FT /product= "Heavy chain"

FT /partial
 FT /note= "No stop codon"
 XX
 PN WO2004022718-A2.
 XX
 PD 18-MAR-2004.
 XX
 PF 05-SEP-2003; 2003WO-US027978.
 XX
 PR 06-SEP-2002; 2002US-0408719P.
 XX
 PA (AMGE-) AMGEN INC.
 XX
 PI Varnum B, Vezina C, Witte A, Qian X, Martin F, Huang H;
 PI Elliott G;
 XX
 DR WPI; 2004-248462/23.
 DR P-PSDB; ADM41569.
 XX
 PT Isolated human antibody that specifically binds interleukin-1 receptor
 PT type 1 (IL-1R1) useful for treating IL-1 mediated diseases such as
 PT rheumatoid arthritis, osteoarthritis and inflammatory conditions.
 XX
 PS Example 7; SEQ ID NO 33; 179pp; English.
 XX
 CC The present sequence is that of cDNA encoding a human anti-interleukin-1
 CC receptor type 1 (IL-1R1) monoclonal antibody (MAB) heavy chain. The
 CC invention provides antibodies that comprise this heavy chain sequence.
 CC Human MABs to IL-1R1 were prepared using the HCo7 strain of transgenic
 CC mice, which expresses human antibody genes. These mice were immunised
 CC with purified recombinant IL-1R1, and splenocytes from immunised mice
 CC were fused to a mouse myeloma cell line to generate hybridomas.
 CC Hybridomas which secreted a MAB that bound with high avidity to IL-1R1
 CC were selected. The MABs inhibit IL-1 signalling by competing with IL-
 CC 1beta and IL-1alpha binding to IL-1R. These MABs, as well as single chain
 CC antibodies single chain Fv antibodies, Fab antibodies, Fab' antibodies
 CC and (Fab')₂ antibodies derived from them, are used in methods of treating
 CC IL-1 mediated diseases or for detecting the amount of IL-1R1 in a sample.
 CC IL-1 mediated diseases include acute pancreatitis, amyotrophic lateral
 CC sclerosis, Alzheimer's disease, cachexia, anorexia, asthma,
 CC atherosclerosis, autoimmune vasculitis, chronic fatigue syndrome,
 CC Clostridium associated illnesses, coronary conditions, cancer including
 CC leukaemia and tumour metastasis, diabetes, endometriosis, fever,
 CC fibromyalgia, glomerulonephritis, graft versus host disease,
 CC osteoarthritis, rheumatoid arthritis, inflammatory eye disease,
 CC ischaemia, Kawasaki's disease, learning impairment, lung diseases,
 CC multiple sclerosis, myopathy, osteoporosis, pain, Parkinson's disease,
 CC periodontal disease, pre-term labour, psoriasis, reperfusion injury,
 CC septic shock, side effects of radiation therapy, temporal mandibular
 CC joint disease, sleep disturbance, uveitis, or an inflammatory condition
 CC resulting from strain, sprain, cartilage damage, trauma, orthopaedic
 CC surgery, infection or other disease processes.
 XX
 SQ Sequence 1389 BP; 313 A; 459 C; 374 G; 243 T; 0 U; 0 Other;

Query Match 86.4%; Score 399.2; DB 12; Length 1389;
 Best Local Similarity 93.3%; Pred. No. 5.2e-87;

Matches 429; Conservative 0; Mismatches 28; Indels 3; Gaps 1;

```
Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db     61 GTGCAGCTGATGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCC 180
      |||
Db    121 TGTAAGGGTTCTGGATACAGCTTTTCCTTCCACTGGATCGCCTGGGTGCGCCAGATGCC 180

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCCATCCTGGTGCCTCTGATACCAGATACAGC 240

Qy    241 CCGTCCTTCCAAGGCCAGGTCAACATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db    241 CCGTCCTTCCAAGGCCAGGTCAACATCTCAGCCGACAACCTCAACAGCGCCACCTACCTG 300

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA---CCAA 357
      |||
Db    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTTCTGTGCGAGACAAAGGGAA 360

Qy    358 CTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACC 417
      |||
Db    361 CTCGACTACTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCTAGTGCCTCCACC 420

Qy    418 AAGGGCCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db    421 AAGGGCCCCATCGGTCTTCCCCCTGGCGCCCTGCTCCAGGA 460
```

RESULT 8

ADM41570

ID ADM41570 standard; cDNA; 1392 BP.

XX

AC ADM41570;

XX

DT 03-JUN-2004 (first entry)

XX

DE Anti-interleukin-1 receptor type 1 antibody heavy chain cDNA.

XX

KW Human; monoclonal antibody; antibody; interleukin-1; receptor;

KW antiasthmatic; antiinflammatory; dermatological; antiallergic;

KW protozoacide; antirheumatic; antiarthritic; osteopathic; vasotropic;

KW analgesic; antidiabetic; nephrotropic; antianaemic; nootropic;

KW anticonvulsant; dermatological; antigout; antiparkinsonian; antidiabetic;

KW cytostatic; gene; ss.

XX

OS Homo sapiens.

XX

FH Key Location/Qualifiers

FT CDS 1. .1392

FT /*tag= a

FT /product= "Heavy chain"
 FT /partial
 FT /note= "No stop codon"
 FT unsure 1288. .1290
 FT /*tag= b
 FT /note= "Encodes Asp"
 FT unsure 1333. .1335
 FT /*tag= c
 FT /note= "Encodes Met"
 XX
 PN WO2004022718-A2.
 XX
 PD 18-MAR-2004.
 XX
 PF 05-SEP-2003; 2003WO-US027978.
 XX
 PR 06-SEP-2002; 2002US-0408719P.
 XX
 PA (AMGE-) AMGEN INC.
 XX
 PI Varnum B, Vezina C, Witte A, Qian X, Martin F, Huang H;
 PI Elliott G;
 XX
 DR WPI; 2004-248462/23.
 DR P-PSDB; ADM41571.
 XX
 PT Isolated human antibody that specifically binds interleukin-1 receptor
 PT type 1 (IL-1R1) useful for treating IL-1 mediated diseases such as
 PT rheumatoid arthritis, osteoarthritis and inflammatory conditions.
 XX
 PS Example 7; SEQ ID NO 35; 179pp; English.
 XX
 CC The present sequence is that of cDNA encoding a human anti-interleukin-1
 CC receptor type 1 (IL-1R1) monoclonal antibody (MAb) heavy chain. The
 CC invention provides antibodies that comprise this heavy chain sequence.
 CC Human MAb to IL-1R1 were prepared using the HCo7 strain of transgenic
 CC mice, which expresses human antibody genes. These mice were immunised
 CC with purified recombinant IL-1R1, and splenocytes from immunised mice
 CC were fused to a mouse myeloma cell line to generate hybridomas.
 CC Hybridomas which secreted a MAb that bound with high avidity to IL-1R1
 CC were selected. The MABs inhibit IL-1 signalling by competing with IL-
 CC 1beta and IL-1alpha binding to IL-1R. These MABs, as well as single chain
 CC antibodies single chain Fv antibodies, Fab antibodies, Fab' antibodies
 CC and (Fab')₂ antibodies derived from them, are used in methods of treating
 CC IL-1 mediated diseases or for detecting the amount of IL-1R1 in a sample.
 CC IL-1 mediated diseases include acute pancreatitis, amyotrophic lateral
 CC sclerosis, Alzheimer's disease, cachexia, anorexia, asthma,
 CC atherosclerosis, autoimmune vasculitis, chronic fatigue syndrome,
 CC Clostridium associated illnesses, coronary conditions, cancer including
 CC leukaemia and tumour metastasis, diabetes, endometriosis, fever,
 CC fibromyalgia, glomerulonephritis, graft versus host disease,
 CC osteoarthritis, rheumatoid arthritis, inflammatory eye disease,
 CC ischaemia, Kawasaki's disease, learning impairment, lung diseases,
 CC multiple sclerosis, myopathy, osteoporosis, pain, Parkinson's disease,
 CC periodontal disease, pre-term labour, psoriasis, reperfusion injury,
 CC septic shock, side effects of radiation therapy, temporal mandibular
 CC joint disease, sleep disturbance, uveitis, or an inflammatory condition

CC resulting from strain, sprain, cartilage damage, trauma, orthopaedic
CC surgery, infection or other disease processes.

XX

SQ Sequence 1392 BP; 312 A; 451 C; 381 G; 246 T; 0 U; 2 Other;

Query Match 85.0%; Score 392.8; DB 12; Length 1392;
Best Local Similarity 92.4%; Pred. No. 1.9e-85;
Matches 425; Conservative 0; Mismatches 32; Indels 3; Gaps 1;

```
Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db     61 GTGCAGCTGATGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db    121 TGTAAGGGTTCTGGATACAGCTTTTCCTTCCACTGGATCGCCTGGGTGCGCCAGATGCCC 180

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCCATCCTGGTGCCTCTGATACCAGATACAGC 240

Qy    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAACCTCCAACAGCGCCACCTACCTG 300

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA---CCAA 357
      |||
Db    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTTCTGTGCGAGACAAAGGGAA 360

Qy    358 CTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACC 417
      |||
Db    361 CTCGACTACTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCTAGTGCCAGCACC 420

Qy    418 AAGGGCCCATCGGTCTTCCCCCTGGGCACCCTCCTCCAAGA 457
      |||
Db    421 AAGGGGCCATCCGTCTTCCCCCTGGGCGCCCTGCTCCAGGA 460
```

RESULT 9

AAH41155

ID AAH41155 standard; DNA; 438 BP.

XX

AC AAH41155;

XX

DT 22-AUG-2001 (first entry)

XX

DE Human coding sequence SEQ ID 7.

XX

KW Human; antiarthritic; cardiant; monoclonal antibody; keloid; arthritis;

KW Tumour Growth Factor-beta II receptor; TGF-beta II receptor; atopy;

KW signal transduction inhibition; tissue fibrosis; atherosclerosis; ds..

XX

OS Homo sapiens.

XX
 PN WO200136642-A1.
 XX
 PD 25-MAY-2001.
 XX
 PF 17-NOV-2000; 2000WO-JP008129.
 XX
 PR 18-NOV-1999; 99JP-00328681.
 PR 08-NOV-2000; 2000JP-00340216.
 XX
 PA (NISB) JAPAN TOBACCO INC.
 XX
 PI Sakamoto S, Kamada M;
 XX
 DR WPI; 2001-343825/36.
 DR P-PSDE; AAB99113.
 XX
 PT Human monoclonal antibodies recognizing human TGF-beta II receptor,
 PT useful for treating TGF-beta associated diseases such as tissue fibrosis.
 XX
 PS Example 12; Page 98-99; 118pp; Japanese.
 XX
 CC The present invention relates to novel human monoclonal antibodies. The
 CC antibodies can bind to human Tumour Growth Factor-beta (TGF-beta) II
 CC receptor, resulting in the inhibition of the signal transduction of human
 CC TGF-beta into cells. The antibodies can be used for the prevention and
 CC treatment of diseases associated with the production of TGF-beta, such as
 CC tissue fibrosis in the lung, liver, skin, kidney or other tissues,
 CC atherosclerosis, atopy, keloid and arthritis. The present sequence was
 CC used in the present invention
 XX
 SQ Sequence 438 BP; 85 A; 128 C; 135 G; 90 T; 0 U; 0 Other;

Query Match 81.6%; Score 377; DB 4; Length 438;
 Best Local Similarity 93.4%; Pred. No. 1e-81;
 Matches 408; Conservative 0; Mismatches 20; Indels 9; Gaps 1;

Qy 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

 Qy 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

 Qy 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180

 Qy 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGC 240

 Qy 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300

Qy 301 CAGTGGAGCAGCCTGAAGGCCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 301 CAGTGGAGCAGCCTGAAGGCCCTCGGACACCGCCATGTATTACTGTGCGAGGGTGGGGGGG 360
 Qy 361 -----GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCC 411
 || || || ||||||||||||||||||||||||||||||||||||
 Db 361 TGTAGTGGTGGTAGCTGCTACCTCTGGGGCCAGGGAACCTGGTCACCGTCTCCTCAGCT 420
 Qy 412 TCCACCAAGGGCCCATC 428
 ||||||||||||||||
 Db 421 TCCACCAAGGGCCCATC 437

RESULT 10

AAS22482

ID AAS22482 standard; cDNA; 1612 BP.

XX

AC AAS22482;

XX

DT 24-OCT-2001 (first entry)

XX

DE Human cDNA encoding a novel human protein #48.

XX

KW Human; novel protein; ss; Antianaemic; osteopathic; antiinflammatory;
 KW immunomodulatory; cytostatic; neuroprotective; vulnerary; nootropic;
 KW anticonvulsant; antiarthritic; cerebroprotective; antifungal; antiviral;
 KW antibacterial; antiallergic; dermatological; haemostatic; antiasthmatic;
 KW thrombolytic; immunogen; antibody; gene therapy; neurological disorder;
 KW Parkinson's disease; inflammatory disorder; cancer; asthma; osteoporosis;
 KW tissue regeneration; immune disorder.

XX

OS Homo sapiens.

XX

PN WO200155437-A2.

XX

PD 02-AUG-2001.

XX

PF 25-JAN-2001; 2001WO-US002623.

XX

PR 25-JAN-2000; 2000US-00491404.

XX

PA (HYSE-) HYSEQ INC.

XX

PI Tang YT, Liu C, Drmanac RT;

XX

DR WPI; 2001-451939/48.

DR

P-PSDB; AAU14177.

XX

PT Isolated polypeptides useful for treating anti-inflammatory diseases,
 PT nervous system disorders, and for regenerating bone and cartilage.

XX

PS Claim 1; Page 247-249; 894pp; English.

XX

CC The invention relates to polynucleotides encoding novel human proteins or
 CC their active domains. The polypeptides, polynucleotides and antibodies
 CC raised against the polypeptides are used in a method of treatment of a
 CC mammal and prevention of disorders caused by the aberrant protein

Db	463	ACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAG 522
Qy	457	A 457
Db	523	A 523

RESULT 11

ADF69259

ID ADF69259 standard; cDNA; 1018 BP.

XX

AC ADF69259;

XX

DT 26-FEB-2004 (first entry)

XX

DE Human lung specific nucleotide sequence SEQ ID NO:16.

XX

KW human; lung specific nucleic acid; lung specific protein; lung cancer;
 KW cytostatic; gene therapy; gene; ss; chromosome 14.

XX

OS Homo sapiens.

XX

PN WO2003102137-A2.

XX

PD 11-DEC-2003.

XX

PF 30-MAY-2003; 2003WO-US016810.

XX

PR 31-MAY-2002; 2002US-0385301P.

XX

PA (DIAD-) DIADEXUS INC.

XX

PI Chen S, Macina RA, Sun Y, Liu C, Turner LR;

XX

DR WPI; 2004-053457/05.

XX

PT New human lung specific nucleic acid, useful for preparing a composition
 PT for diagnosing or treating lung cancer.

XX

PS Claim 1; SEQ ID NO 16; 221pp; English.

XX

CC The present invention describes a human lung specific nucleic acid
 CC molecule. Also described: (1) a method for determining the presence of a
 CC lung specific nucleic acid (LSNA) in a sample; (2) a vector comprising
 CC the nucleic acid molecule; (3) a host cell comprising the vector; (4) a
 CC method for producing a polypeptide encoded by the nucleic acid molecule;
 CC (5) a polypeptide encoded by the nucleic acid molecule; (6) an antibody
 CC or its fragment that specifically binds to the polypeptide; (7) a method
 CC for determining the presence of a lung specific protein in a sample; (8)
 CC a method for diagnosing and monitoring the presence and metastases of
 CC lung cancer in a patient; (9) a kit for detecting a risk of cancer or
 CC presence of cancer in a patient comprising a means for determining the
 CC presence the nucleic acid molecule or polypeptide in a sample of a
 CC patient; (10) a method of treating a patient with lung cancer; and (11) a
 CC vaccine comprising the polypeptide or the nucleic acid encoding the
 CC polypeptide. Human LSNA molecules and related proteins have cytostatic

CC activity, and can be used in gene therapy. They are useful for preparing
CC a composition for diagnosing or treating lung cancer. The present
CC sequence represents a human LSNA molecule, which is used in the
CC exemplification of the present invention.

XX

SQ Sequence 1018 BP; 188 A; 335 C; 288 G; 207 T; 0 U; 0 Other;

Query Match 78.5%; Score 362.8; DB 12; Length 1018;
Best Local Similarity 90.2%; Pred. No. 3.3e-78;
Matches 415; Conservative 0; Mismatches 32; Indels 13; Gaps 2;

```
Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      60 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 119

Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db     120 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 179

Qy     121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db     180 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 239

Qy     181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db     240 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGC 299

Qy     241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db     300 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 359

Qy     301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA----- 351
      |||
Db     360 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACCTATAGCA 419

Qy     352 ---GACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCA 408
      |
Db     420 GTGGCTGGTCACTACTACTTTGACTACTGGGGCCA-GGAACCCTGGTCACCGTCTCCTCA 478

Qy     409 GCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCT 448
      |
Db     479 GGGAGTGCATCCGCCCAACCCTTTTCCCCCTCGTCTCCT 518
```

RESULT 12

ADM41550

ID ADM41550 standard; cDNA; 411 BP.

XX

AC ADM41550;

XX

DT 03-JUN-2004 (first entry)

XX

DE Anti-interleukin-1 receptor type 1 antibody heavy chain variable region.

XX

KW Human; monoclonal antibody; antibody; interleukin-1; receptor;

KW antiasthmatic; antiinflammatory; dermatological; antiallergic;

KW protozoacide; antirheumatic; antiarthritic; osteopathic; vasotropic;

KW analgesic; antidiabetic; nephrotropic; antianaemic; nootropic;
 KW anticonvulsant; dermatological; antigout; antiparkinsonian; antidiabetic;
 KW cytostatic; gene; ss.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT CDS 1. .411
 FT /*tag= a
 FT /product= "Heavy chain variable region"
 FT /partial
 FT /note= "No stop codon"
 XX
 PN WO2004022718-A2.
 XX
 PD 18-MAR-2004..
 XX
 PF 05-SEP-2003; 2003WO-US027978.
 XX
 PR 06-SEP-2002; 2002US-0408719P.
 XX
 PA (AMGE-) AMGEN INC.
 XX
 PI Varnum B, Vezina C, Witte A, Qian X, Martin F, Huang H;
 PI Elliott G;
 XX
 DR WPI; 2004-248462/23.
 DR P-PSDB; ADM41551.
 XX
 PT Isolated human antibody that specifically binds interleukin-1 receptor
 PT type 1 (IL-1R1) useful for treating IL-1 mediated diseases such as
 PT rheumatoid arthritis, osteoarthritis and inflammatory conditions.
 XX
 PS Example 7; SEQ ID NO 15; 179pp; English.
 XX
 CC The present sequence is that of cDNA encoding human anti-interleukin-1
 CC receptor type 1 (IL-1R1) monoclonal antibody (MAb) 15C4 heavy chain
 CC variable region. Human MAbs to IL-1R1 were prepared using the HCo7 strain
 CC of transgenic mice, which expresses human antibody genes. These mice were
 CC immunised with purified recombinant IL-1R1, and splenocytes from
 CC immunised mice were fused to a mouse myeloma cell line to generate
 CC hybridomas. Hybridomas which secreted a MAb that bound with high avidity
 CC to IL-1R1 were selected. The MAbs inhibit IL-1 signalling by competing
 CC with IL-1beta and IL-1alpha binding to IL-1R. These MAbs, as well as
 CC single chain antibodies single chain Fv antibodies, Fab antibodies, Fab'
 CC antibodies and (Fab')₂ antibodies derived from them, are used in methods
 CC of treating IL-1 mediated diseases or for detecting the amount of IL-1R1
 CC in a sample. IL-1 mediated diseases include acute pancreatitis,
 CC amyotrophic lateral sclerosis, Alzheimer's disease, cachexia, anorexia,
 CC asthma, atherosclerosis, autoimmune vasculitis, chronic fatigue syndrome,
 CC Clostridium associated illnesses, coronary conditions, cancer including
 CC leukaemia and tumour metastasis, diabetes, endometriosis, fever,
 CC fibromyalgia, glomerulonephritis, graft versus host disease,
 CC osteoarthritis, rheumatoid arthritis, inflammatory eye disease,
 CC ischaemia, Kawasaki's disease, learning impairment, lung diseases,
 CC multiple sclerosis, myopathy, osteoporosis, pain, Parkinson's disease,
 CC periodontal disease, pre-term labour, psoriasis, reperfusion injury,

CC septic shock, side effects of radiation therapy, temporal mandibular
CC joint disease, sleep disturbance, uveitis, or an inflammatory condition
CC resulting from strain, sprain, cartilage damage, trauma, orthopaedic
CC surgery, infection or other disease processes.

XX

SQ Sequence 411 BP; 85 A; 124 C; 116 G; 86 T; 0 U; 0 Other;

Query Match 77.4%; Score 357.4; DB 12; Length 411;
Best Local Similarity 94.1%; Pred. No. 5.7e-77;
Matches 383; Conservative 0; Mismatches 21; Indels 3; Gaps 1;

```
Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db     61 GTGCAGCTGATGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db    121 TGTAAGGGTTCTGGATACAGCTTTTCCTTCCACTGGATCGCTGGGTGCGCCAGATGCCC 180

Qy    181 CGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCCATCCTGGTGCCTCTGATACCAGATACAGC 240

Qy    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA---CCAA 357
      |||
Db    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTTCTGTGCGAGACAAAGGGAA 360

Qy    358 CTGGGCCTCTTTGACTACTGGGGCCAGGGAACCTGGTCACCGTCTC 404
      |||
Db    361 CTCGACTACTTTGACTACTGGGGCCAGGGAACCTGGTCACCGTCTC 407
```

RESULT 13

AAS62808

ID AAS62808 standard; cDNA; 1590 BP.

XX

AC

AAS62808;

XX

DT

14-FEB-2002 (first entry)

XX

DE

cDNA sequence #595 encoding novel human secreted protein.

XX

KW

Human secreted protein; hyperproliferative disorder; autoimmune disorder;

KW

immune deficiency disorder; blood disorder; inflammatory disorder;

KW

infectious disorder; gene therapy; antimicrobial; hepatotropic;

KW

immunosuppressive; antirheumatic; ss.

XX

OS

Homo sapiens.

XX

The present invention describes a method (M1) for producing a human antibody phage display library (I), comprising: (1) providing a nonhuman transgenic animal (II) whose genome comprises human immunoglobulin genes; (2) isolating nucleic acids encoding human antibody chains (III) from lymphatic cells; and (3) forming a library of display packages whose members comprise a nucleic acid encoding (III) which is displayed from the package. The method is used for producing a human antibody display library, e.g., a Fab phage display library. The display method may be used to screen nucleic acids encoding antibody chains obtained from immunised nonhuman transgenic animals, and from this a population of antibodies may be prepared. Production of a human monoclonal antibodies display library using this method means there is no need to immunise humans with antigens, and the difficulties faced with immortalising B cells are avoided. AAH29958 to AAH30066 and AAB74994 to AAB75056 represent sequences used in the exemplification of the present invention

SO Sequence 675 BP; 149 A; 216 C; 182 G; 128 T; 0 U; 0 Other;

Query Match 76.7%; Score 354.2; DB 4; Length 675;
Best Local Similarity 93.0%; Pred. No. 3.7e-76;
Matches 371; Conservative 0; Mismatches 28; Indels 0; Gaps 0;

QY 59 AGGTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCCGGGGAGTCTCTGAAGATCT 118

DB 2 AGGTGCAGCTGGTGCAGTCTGGGGCAGAGGTGAAAAGCCCGGGGAGTCTCTGAAGATCT 61

Qy 119 CCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGC 178

Db 52 CCTGTAAGGGTTCTGGATACAGCTTTACCAACTACTGGATCGGCTGGGTGCGCCAGATGC 121

QY 179 CCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTGTGATACCACATACA 238

Db 122 CCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATTCTGATGACTCTGTTACCAGATACA 181

QY 239 G C C C G T C C T T C C A A G G C C A G G T C A C C A T C T C A G C C G A C A A G T C C A T C A G C A C C G C C T A C C 298

Db 182 GCCCGTCC TTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGTACCGCCTACC 241

QY 299 TGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAAC 358

Db 242 TGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTACGAGAGATGGTC 301

QY 359 TGGGCCTCTTTGACTACTGGGGCCAGGGAACCTGGTCAACGTCCTCTCAGCCTCCACCA 418

Db 302 CCGAAGCTTTTGATATCTGGGGCCAAGGGACAATGGTCACCGTCTCTTCAGCCTCCACCA 361

Qy 419 AGGGCCCATCGGTCTTCCCCCTGGCACCTCCTCCAAGA 457

Db 362 AGGGCCCATCGGTCTTCCCCCTGGCACCTCCTCCAAGA 400

RESULT 15

AAH30061

ID AAH30061 standard; DNA; 675 BP.

XX

AC AAH30061;

XX
 DT 19-JUL-2001 (first entry)
 XX
 DE TRO005 heavy chain nucleotide sequence 3E.3.
 XX
 KW Human; antibody; immunoglobulin; interleukin 8; IL8; immunogen;
 KW human antibody phage display library; immunisation; transgenic animal;
 KW ds.
 XX
 OS Homo sapiens.
 OS Synthetic.
 XX
 PN WO200125492-A1.
 XX
 PD 12-APR-2001.
 XX
 PF 02-OCT-2000; 2000WO-US027237.
 XX
 PR 02-OCT-1999; 99US-0157415P.
 PR 01-DEC-1999; 99US-00453234.
 XX
 PA (BIOS-) BIOSITE DIAGNOSTICS INC.
 PA (GENP-) GENPHARM INT SUBSIDIARY OF MEDAREX INC.
 XX
 PI Buechler J, Valkirs G, Gray J, Lonberg N;
 XX
 DR WPI; 2001-335567/35.
 XX
 PT Producing a human antibody phage display library comprises providing a
 PT transgenic animal whose genome comprises human immunoglobulin genes and
 PT isolating nucleic acids encoding antibody chains from lymphatic cells.
 XX
 PS Example 37; Page 120; 161pp; English.
 XX
 CC The present invention describes a method (M1) for producing a human
 CC antibody phage display library (I), comprising: (1) providing a nonhuman
 CC transgenic animal (II) whose genome comprises human immunoglobulin genes;
 CC (2) isolating nucleic acids encoding human antibody chains (III) from
 CC lymphatic cells; and (3) forming a library of display packages whose
 CC members comprise a nucleic acid encoding (III) which is displayed from
 CC the package. The method is used for producing a human antibody display
 CC library, e.g., a Fab phage display library. The display method may be
 CC used to screen nucleic acids encoding antibody chains obtained from
 CC immunised nonhuman transgenic animals, and from this a population of
 CC antibodies may be prepared. Production of a human monoclonal antibodies
 CC display library using this method means there is no need to immunise
 CC humans with antigens, and the difficulties faced with immortalising B
 CC cells are avoided. AAH29958 to AAH30066 and AAB74994 to AAB75056
 CC represent sequences used in the exemplification of the present invention
 XX
 SQ Sequence 675 BP; 148 A; 217 C; 182 G; 128 T; 0 U; 0 Other;

Query Match 76.7%; Score 354.2; DB 4; Length 675;
 Best Local Similarity 93.0%; Pred. No. 3.7e-76;
 Matches 371; Conservative 0; Mismatches 28; Indels 0; Gaps 0;

Qy 59 AGGTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCT 118

```

      |||
Db      2  AGGTGCAGCTGGTGCAGTCTGGGGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCT 61
Qy      119 CCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGC 178
      |||
Db      62  CCTGTAAGGGTTCTGGATACAGCTTTACCAACTACTGGATCGGCTGGGTGCGCCAGATGC 121
Qy      179 CCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGAAGTCTGATACCACATACA 238
      |||
Db      122 CCGGGAAAGGCCTGGAGTGGATGGGGTTTCATCTATTCTGATGACTCTGTTACCAGATACA 181
Qy      239 GCCCGTCCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACC 298
      |||
Db      182 GCCCGTCCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGTACCGCCTACC 241
Qy      299 TGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAAC 358
      |||
Db      242 TGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTACGAGAGATGGTC 301
Qy      359 TGGGCCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCTCCTCAGCCTCCACCA 418
      |||
Db      302 CCGAAGCTTTTGATATCTGGGGCCAAGGGACAATGGTCACCGTCTCCTCAGCCTCCACCA 361
Qy      419 AGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db      362 AGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 400

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Search completed: December 2, 2004, 13:05:58
Job time : 360.717 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 12:19:03 ; Search time 67.4772 Seconds
(without alignments)
4866.596 Million cell updates/sec

Title: US-08-728-463B-207
Perfect score: 462
Sequence: 1 ATGGGGTCAACCGCCATCCT.....CACCCCTCCTCCAAGAAGCTT 462

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 824507 seqs, 355394441 residues

Total number of hits satisfying chosen parameters: 1649014

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database : Issued_Patents_NA:*

- 1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
- 2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*
- 3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*
- 4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*
- 5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
- 6: /cgn2_6/ptodata/1/ina/backfiles1.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Match	Query Length	DB	ID	Description
1	462	100.0	462	3	US-09-042-353-359	Sequence 359, App
2	462	100.0	462	3	US-08-758-417A-207	Sequence 207, App
3	335.6	72.6	414	3	US-09-042-353-353	Sequence 353, App
4	335.6	72.6	414	3	US-08-758-417A-201	Sequence 201, App
5	330	71.4	477	3	US-08-724-752-16	Sequence 16, Appl
6	330	71.4	477	4	US-09-614-092A-16	Sequence 16, Appl
7	326.2	70.6	357	1	US-08-053-131-156	Sequence 156, App
8	326.2	70.6	357	1	US-08-096-762-156	Sequence 156, App
9	320	69.3	361	1	US-08-053-131-177	Sequence 177, App
10	320	69.3	361	1	US-08-096-762-177	Sequence 177, App
11	315.6	68.3	348	1	US-08-053-131-157	Sequence 157, App
12	315.6	68.3	348	1	US-08-096-762-157	Sequence 157, App
13	314.8	68.1	352	1	US-08-053-131-175	Sequence 175, App
14	314.8	68.1	352	1	US-08-096-762-175	Sequence 175, App
15	313.8	67.9	370	1	US-08-053-131-173	Sequence 173, App
16	313.8	67.9	370	1	US-08-096-762-173	Sequence 173, App
17	312.4	67.6	348	1	US-08-053-131-160	Sequence 160, App
18	312.4	67.6	348	1	US-08-096-762-160	Sequence 160, App
19	312.4	67.6	349	1	US-08-053-131-165	Sequence 165, App
20	312.4	67.6	349	1	US-08-096-762-165	Sequence 165, App
21	312.4	67.6	358	1	US-08-053-131-172	Sequence 172, App
22	312.4	67.6	358	1	US-08-096-762-172	Sequence 172, App
23	312	67.5	362	1	US-08-053-131-170	Sequence 170, App
24	312	67.5	362	1	US-08-096-762-170	Sequence 170, App
25	308.6	66.8	360	1	US-08-053-131-169	Sequence 169, App
26	308.6	66.8	360	1	US-08-096-762-169	Sequence 169, App
27	305.4	66.1	700	3	US-08-545-809A-51	Sequence 51, Appl
28	304.8	66.0	345	1	US-08-053-131-158	Sequence 158, App
29	304.8	66.0	345	1	US-08-096-762-158	Sequence 158, App
30	304	65.8	360	1	US-08-053-131-161	Sequence 161, App
31	304	65.8	360	1	US-08-096-762-161	Sequence 161, App
32	303	65.6	458	4	US-09-513-999C-3725	Sequence 3725, Ap
33	302.4	65.5	358	1	US-08-053-131-174	Sequence 174, App
34	302.4	65.5	358	1	US-08-096-762-174	Sequence 174, App
35	302.2	65.4	361	1	US-08-053-131-171	Sequence 171, App
36	302.2	65.4	361	1	US-08-096-762-171	Sequence 171, App
37	301.8	65.3	441	1	US-08-259-372A-7	Sequence 7, Appli
38	301.8	65.3	441	1	US-08-468-671-7	Sequence 7, Appli

39	301.2	65.2	366	1	US-08-053-131-163	Sequence 163, App
40	301.2	65.2	366	1	US-08-096-762-163	Sequence 163, App
41	300.6	65.1	357	1	US-08-053-131-159	Sequence 159, App
42	300.6	65.1	357	1	US-08-096-762-159	Sequence 159, App
43	296	64.1	429	4	US-09-513-999C-40	Sequence 40, Appl
44	293.2	63.5	325	1	US-08-053-131-162	Sequence 162, App
45	293.2	63.5	325	1	US-08-096-762-162	Sequence 162, App

ALIGNMENTS

RESULT 1

US-09-042-353-359

; Sequence 359, Application US/09042353

; Patent No. 6255458

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 6255458-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 421

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP

; STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94111-3834

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/042,353

; FILING DATE: 13-MAR-1998

; CLASSIFICATION: 800

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/810,279

; FILING DATE: 17-DEC-1991

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/853,408

; FILING DATE: 18-MAR-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/904,068

; FILING DATE: 23-JUN-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/990,860

; FILING DATE: 16-DEC-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/053,131

; FILING DATE: 26-APR-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/096,762

; FILING DATE: 22-JUL-1993

; PRIOR APPLICATION DATA:

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; APPLICATION NUMBER: US 08/155,301
; FILING DATE: 18-NOV-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/161,739
; FILING DATE: 03-DEC-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/165,699
; FILING DATE: 10-DEC-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/209,741
; FILING DATE: 09-MAR-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/352,322
; FILING DATE: 07-DEC-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/544,404
; FILING DATE: 10-OCT-1995
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/728,463
; FILING DATE: 10-OCT-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/US96/16433
; FILING DATE: 10-OCT-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/758,417
; FILING DATE: 02-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/US97/21803
; FILING DATE: 01-DEC-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Apple, Randolph T.
; REGISTRATION NUMBER: 36,429
; REFERENCE/DOCKET NUMBER: 014643-009040US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 576-0200
; TELEFAX: (415) 576-0300
; INFORMATION FOR SEQ ID NO: 359:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 462 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA
US-09-042-353-359

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Query Match      100.0%; Score 462; DB 3; Length 462;
Best Local Similarity 100.0%; Pred. No. 4.8e-117;
Matches 462; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
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Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
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Db     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

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Qy      121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
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Db      121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180

Qy      181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
        |||
Db      181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240

Qy      241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
        |||
Db      241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300

Qy      301 CAGTGGAGCAGCCTGAAGGCCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
        |||
Db      301 CAGTGGAGCAGCCTGAAGGCCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360

Qy      361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420
        |||
Db      361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420

Qy      421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462
        |||
Db      421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462

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RESULT 2

US-08-758-417A-207

; Sequence 207, Application US/08758417A

; Patent No. 6300129

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 6300129-Human Animals for
; Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 417

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP

; STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94111-3834

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/758,417A

; FILING DATE: 02-Dec-1996

; CLASSIFICATION: <Unknown>

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/728,463

; FILING DATE: 10-OCT-1996

; APPLICATION NUMBER: US 08/544,404

; FILING DATE: 10-OCT-1995

; APPLICATION NUMBER: US 08/352,322


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Db      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
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Qy      361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420
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Db      361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420
      |||
Qy      421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462
      |||
Db      421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462

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RESULT 3

US-09-042-353-353

; Sequence 353, Application US/09042353

; Patent No. 6255458

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 6255458-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 421

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP

; STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94111-3834

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/042,353

; FILING DATE: 13-MAR-1998

; CLASSIFICATION: 800

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/810,279

; FILING DATE: 17-DEC-1991

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/853,408

; FILING DATE: 18-MAR-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/904,068

; FILING DATE: 23-JUN-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/990,860

; FILING DATE: 16-DEC-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/053,131

; FILING DATE: 26-APR-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/096,762

; FILING DATE: 22-JUL-1993

; PRIOR APPLICATION DATA:

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; APPLICATION NUMBER: US 08/155,301
; FILING DATE: 18-NOV-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/161,739
; FILING DATE: 03-DEC-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/165,699
; FILING DATE: 10-DEC-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/209,741
; FILING DATE: 09-MAR-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/352,322
; FILING DATE: 07-DEC-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/544,404
; FILING DATE: 10-OCT-1995
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/728,463
; FILING DATE: 10-OCT-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/US96/16433
; FILING DATE: 10-OCT-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/758,417
; FILING DATE: 02-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/US97/21803
; FILING DATE: 01-DEC-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Apple, Randolph T.
; REGISTRATION NUMBER: 36,429
; REFERENCE/DOCKET NUMBER: 014643-009040US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 576-0200
; TELEFAX: (415) 576-0300
; INFORMATION FOR SEQ ID NO: 353:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 414 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA
US-09-042-353-353

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Query Match          72.6%; Score 335.6; DB 3; Length 414;
Best Local Similarity 91.3%; Pred. No. 1.6e-82;
Matches 369; Conservative 0; Mismatches 29; Indels 6; Gaps 1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
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Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
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Qy 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
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 Db 130 TGTAAGGGTTCTGGATACAGCTTTACAGTTACTGGATCGCCTGGGTGCGCCAGATGCCC 189
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 Qy 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
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 Db 190 GGGAAAGGCCTGGAGTGGATGGGGATCATCGATCCTGCTGACTCTGATACCAGATACAAC 249
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 Qy 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
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 Db 250 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGTACCGCCTATTTG 309
 |||
 Qy 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA-----GAC 354
 |||
 Db 310 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACCAGCGAAC 369
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 Qy 355 CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCAC 398
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 Db 370 TGGAAGTGGTACTTCGTTCTCTGGGGCCGTGGCAACCTGGTCAC 413
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RESULT 4

US-08-758-417A-201

; Sequence 201, Application US/08758417A

; Patent No. 6300129

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 6300129-Human Animals for
 ; Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 417

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP

; STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94111-3834

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/758,417A

; FILING DATE: 02-Dec-1996

; CLASSIFICATION: <Unknown>

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/728,463

; FILING DATE: 10-OCT-1996

; APPLICATION NUMBER: US 08/544,404

; FILING DATE: 10-OCT-1995

; APPLICATION NUMBER: US 08/352,322

; FILING DATE: 07-DEC-1994

; APPLICATION NUMBER: US 08/209,741

; FILING DATE: 09-MAR-1994

; APPLICATION NUMBER: US 08/165,699

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; FILING DATE: 10-DEC-1993
; APPLICATION NUMBER: US 08/161,739
; FILING DATE: 03-DEC-1993
; APPLICATION NUMBER: US 08/155,301
; FILING DATE: 18-NOV-1993
; APPLICATION NUMBER: US 08/096,762
; FILING DATE: 22-JUL-1993
; APPLICATION NUMBER: US 08/053,131
; FILING DATE: 26-APR-1993
; APPLICATION NUMBER: US 07/990,860 .
; FILING DATE: 16-DEC-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Serafini, Andrew T.
; REGISTRATION NUMBER: 41,303
; REFERENCE/DOCKET NUMBER: 014643-009030US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 576-0200
; TELEFAX: (415) 576-0300
; INFORMATION FOR SEQ ID NO: 201:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 414 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA
; SEQUENCE DESCRIPTION: SEQ ID NO: 201:
US-08-758-417A-201

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Query Match          72.6%;  Score 335.6;  DB 3;  Length 414;
Best Local Similarity 91.3%;  Pred. No. 1.6e-82;
Matches 369;  Conservative 0;  Mismatches 29;  Indels 6;  Gaps 1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     10 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 69

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     70 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 129

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      ||||||||||||||||||||||||||||| ||||||||| ||||||||||||||||
Db    130 TGTAAGGGTTCTGGATACAGCTTTACCACTTACTGGATCGCCTGGGTGCGCCAGATGCCC 189

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    190 GGGAAAGGCCTGGAGTGGATGGGGATCATCGATCCTGCTGACTCTGATACCAGATACAAC 249

Qy    241 CCGTCCTTTCCAAGGCCAGGTCAACATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    250 CCGTCCTTTCCAAGGCCAGGTCAACATCTCAGCCGACAAGTCCATCAGTACCGCCTATTTG 309

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA-----GAC 354
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    310 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACCAGCGAAC 369

Qy    355 CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCAC 398

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Db

370 TGGAAGTGGTACTTCTGTTCTCTGGGGCCGTGGCACCTGGTCAC 413

RESULT 5

US-08-724-752-16

; Sequence 16, Application US/08724752

; Patent No. 6150584

; GENERAL INFORMATION:

; APPLICANT: Kucherlapati, Raju

; APPLICANT: Jakobovits, Aya

; APPLICANT: Brenner, Daniel G.

; APPLICANT: Capon, Daniel J.

; APPLICANT: Klaphoz, Sue

; TITLE OF INVENTION: HUMAN ANTIBODIES DERIVED FROM IMMUNIZED

; TITLE OF INVENTION: XENOMICE

; NUMBER OF SEQUENCES: 21

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: FISH & NEAVE

; STREET: 1251 Avenue of the Americas

; CITY: New York

; STATE: New York

; COUNTRY: USA

; ZIP: 10020

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/724,752

; FILING DATE: 02-DEC-1996

; CLASSIFICATION: 536

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: PCT/US96/05928

; FILING DATE: 29-APR-1996

; ATTORNEY/AGENT INFORMATION:

; NAME: Haley Jr., James F.

; REGISTRATION NUMBER: 27,794

; REFERENCE/DOCKET NUMBER: Cell 4.17

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 212-596-9000

; TELEFAX: 212-596-9090

; INFORMATION FOR SEQ ID NO: 16:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 477 base pairs

; TYPE: nucleic acid

; STRANDEDNESS: single

; TOPOLOGY: linear

; MOLECULE TYPE: DNA

US-08-724-752-16

Query Match 71.4%; Score 330; DB 3; Length 477;

Best Local Similarity 95.8%; Pred. No. 5.6e-81;

Matches 339; Conservative 0; Mismatches 15; Indels 0; Gaps 0;

Qy

104 AGTCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCT 163

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      |||
Db      1 AGTCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCAGCTACTGGATCGGCT 60
      |||
Qy      164 GGGTGC GCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACT 223
      |||
Db      61 GGGTGC GCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACT 120
      |||
Qy      224 CTGATACCACATACAGCCCGTCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCA 283
      |||
Db      121 CTGATACCAGATACAGCCCGTCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCA 180
      |||
Qy      284 TCAGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACT 343
      |||
Db      181 TCAGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACT 240
      |||
Qy      344 GTGCGAGAGACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCT 403
      |||
Db      241 GTGCGAGACAGGACGGTGACTCCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCT 300
      |||
Qy      404 CCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db      301 CCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCGCCCTGCTCCAGGA 354

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RESULT 6

US-09-614-092A-16

; Sequence 16, Application US/09614092A

; Patent No. 6713610

; GENERAL INFORMATION:

; APPLICANT: KUCHERLAPATI, RAJU

; APPLICANT: JAKABOVITS, AYA

; APPLICANT: BRENNER, DANIEL G.

; APPLICANT: CAPON, DANIEL J.

; APPLICANT: KLAPHOLZ, SUE

; TITLE OF INVENTION: HUMAN ANTIBODIES DERIVED FROM IMMUNIZED XENOMICE

; FILE REFERENCE: Cell 4.17 DIV2

; CURRENT APPLICATION NUMBER: US/09/614,092A

; CURRENT FILING DATE: 2000-07-11

; PRIOR APPLICATION NUMBER: 08/724,752

; PRIOR FILING DATE: 1996-10-02

; PRIOR APPLICATION NUMBER: 08/430,938

; PRIOR FILING DATE: 1995-04-27

; PRIOR APPLICATION NUMBER: 08/234,145

; PRIOR FILING DATE: 1994-04-28

; PRIOR APPLICATION NUMBER: 08/112,848

; PRIOR FILING DATE: 1993-08-27

; PRIOR APPLICATION NUMBER: 08/031,801

; PRIOR FILING DATE: 1993-03-15

; PRIOR APPLICATION NUMBER: 07/919,297

; PRIOR FILING DATE: 1992-07-24

; PRIOR APPLICATION NUMBER: 07/610,515

; PRIOR FILING DATE: 1990-11-08

; PRIOR APPLICATION NUMBER: 07/466,008

; PRIOR FILING DATE: 1990-01-12

; PRIOR APPLICATION NUMBER: PCT/US96/05928

; PRIOR FILING DATE: 1996-04-29

; NUMBER OF SEQ ID NOS: 21

; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 16
; LENGTH: 477
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Heavy chain
; OTHER INFORMATION: anti-IL-8 antibody K4.3
US-09-614-092A-16

Query Match 71.4%; Score 330; DB 4; Length 477;
Best Local Similarity 95.8%; Pred. No. 5.6e-81;
Matches 339; Conservative 0; Mismatches 15; Indels 0; Gaps 0;

```
Qy      104 AGTCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCT 163
          |||
Db      1  AGTCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCAGCTACTGGATCGGCT 60

Qy      164 GGGTGC GCCAGATGCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACT 223
          |||
Db      61 GGGTGC GCCAGATGCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACT 120

Qy      224 CTGATACCACATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCA 283
          |||
Db      121 CTGATACCAGATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCA 180

Qy      284 TCAGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACT 343
          |||
Db      181 TCAGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACT 240

Qy      344 GTGCGAGAGACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCT 403
          |||
Db      241 GTGCGAGACAGGACGGTGACTCCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCT 300

Qy      404 CCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
          |||
Db      301 CCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCGCCCTGCTCCAGGA 354
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RESULT 7

US-08-053-131-156

; Sequence 156, Application US/08053131

; Patent No. 5661016

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 5661016-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 197

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend Khourie and Crew

; STREET: One Market Plaza, Steuart Tower, Suite 200

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94105

; COMPUTER READABLE FORM:

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; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/053,131
; FILING DATE: 26-APR-1993
; CLASSIFICATION: 800
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/990,860
; FILING DATE: 16-DEC-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/810,279
; FILING DATE: 17-DEC-1991
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/853,408
; FILING DATE: 18-MAR-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Smith, William M.
; REGISTRATION NUMBER: 30,223
; REFERENCE/DOCKET NUMBER: 14643-9-3
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-326-2400
; TELEFAX: 415-326-2422
; INFORMATION FOR SEQ ID NO: 156:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 357 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-053-131-156

```

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Query Match          70.6%; Score 326.2; DB 1; Length 357;
Best Local Similarity 96.9%; Pred. No. 5.6e-80;
Matches 344; Conservative 0; Mismatches 8; Indels 3; Gaps 1;

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```

Qy      106 TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 165
        |||
Db      1   TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 60

Qy      166 GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 225
        |||
Db      61 GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 120

Qy      225 GATACCACATACAGCCCGTCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 285
        |||
Db      121 GATACCAGATACAGCCCGTCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 180

Qy      286 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 345
        |||
Db      181 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 240

Qy      346 GCGAGA---GACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTC 402
        |||
Db      241 GCGAGACATGAGCTAACTGGCCTCTTTAACTACTGGGGCCAGGGAACCCTGGTCACCGTC 300

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Qy 403 TCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
 |||
 Db 301 TCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 355

RESULT 8

US-08-096-762-156

; Sequence 156, Application US/08096762

; Patent No. 5814318

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 5814318-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 210

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend Khourie and Crew

; STREET: One Market Plaza, Steuart Tower, Suite 200

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94105

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/096,762

; FILING DATE: 22-JUL-1993

; CLASSIFICATION: 800

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/053,131

; FILING DATE: 26-APR-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/990,860

; FILING DATE: 16-DEC-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/904,068

; FILING DATE: 23-JUN-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/853,408

; FILING DATE: 18-MAR-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/810,279

; FILING DATE: 17-DEC-1991

; ATTORNEY/AGENT INFORMATION:

; NAME: Smith, William M.

; REGISTRATION NUMBER: 30,223

; REFERENCE/DOCKET NUMBER: 14643-9-4

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 415-326-2400

; TELEFAX: 415-326-2422

; INFORMATION FOR SEQ ID NO: 156:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 357 base pairs

; TYPE: nucleic acid

; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-096-762-156

Query Match 70.6%; Score 326.2; DB 1; Length 357;
Best Local Similarity 96.9%; Pred. No. 5.6e-80;
Matches 344; Conservative 0; Mismatches 8; Indels 3; Gaps 1;

```
Qy      106 TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 165
          |||
Db       1  TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 60

Qy      166 GTGCGCCAGATGCCCGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 225
          |||
Db      61  GTGCGCCAGATGCCCGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 120

Qy      226 GATACCACATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 285
          |||
Db     121  GATACCAGATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 180

Qy      286 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 345
          |||
Db     181  AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 240

Qy      346 GCGAGA---GACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTC 402
          |||
Db     241  GCGAGACATGAGCTAACTGGCCTCTTTAACTACTGGGGCCAGGGAACCCTGGTCACCGTC 300

Qy      403 TCCTCAGCCTCCACCAAGGGGCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
          |||
Db     301  TCCTCAGCCTCCACCAAGGGGCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 355
```

RESULT 9

US-08-053-131-177

; Sequence 177, Application US/08053131

; Patent No. 5661016

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 5661016-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 197

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend Khourie and Crew

; STREET: One Market Plaza, Steuart Tower, Suite 200

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94105

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

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; APPLICATION NUMBER: US/08/053,131
; FILING DATE: 26-APR-1993
; CLASSIFICATION: 800
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/990,860
; FILING DATE: 16-DEC-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/810,279
; FILING DATE: 17-DEC-1991
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/853,408
; FILING DATE: 18-MAR-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Smith, William M.
; REGISTRATION NUMBER: 30,223
; REFERENCE/DOCKET NUMBER: 14643-9-3
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-326-2400
; TELEFAX: 415-326-2422
; INFORMATION FOR SEQ ID NO: 177:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 361 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-053-131-177

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Query Match          69.3%; Score 320; DB 1; Length 361;
Best Local Similarity 96.3%; Pred. No. 2.8e-78;
Matches 339; Conservative 0; Mismatches 10; Indels 3; Gaps 1;

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Qy      106 TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 165
        |||||||
Db      1  TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACAGCTACTGGATCGGCTGG 60

Qy      166 GTGCGCCAGATGCCCGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 225
        |||||||
Db      61 GTGCGCCAGATGCCCGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 120

Qy      226 GATACCACATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 285
        |||||||
Db      121 GATACCAGATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 180

Qy      286 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 345
        |||||||
Db      181 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 240

Qy      346 GCGAGAGACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 405
        |||||
Db      241 GCGAGGG---GATCGTGGTACTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 297

Qy      406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
        |||||||
Db      298 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 349

```

RESULT 10

US-08-096-762-177

; Sequence 177, Application US/08096762

; Patent No. 5814318

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 5814318-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 210

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend Khourie and Crew

; STREET: One Market Plaza, Steuart Tower, Suite 200

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94105

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/096,762

; FILING DATE: 22-JUL-1993

; CLASSIFICATION: 800

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/053,131

; FILING DATE: 26-APR-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/990,860

; FILING DATE: 16-DEC-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/904,068

; FILING DATE: 23-JUN-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/853,408

; FILING DATE: 18-MAR-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/810,279

; FILING DATE: 17-DEC-1991

; ATTORNEY/AGENT INFORMATION:

; NAME: Smith, William M.

; REGISTRATION NUMBER: 30,223

; REFERENCE/DOCKET NUMBER: 14643-9-4

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 415-326-2400

; TELEFAX: 415-326-2422

; INFORMATION FOR SEQ ID NO: 177:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 361 base pairs

; TYPE: nucleic acid

; STRANDEDNESS: single

; TOPOLOGY: linear

; MOLECULE TYPE: DNA (genomic)

US-08-096-762-177

Query Match 69.3%; Score 320; DB 1; Length 361;
Best Local Similarity 96.3%; Pred. No. 2.8e-78;
Matches 339; Conservative 0; Mismatches 10; Indels 3; Gaps 1;

```
Qy      106 TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 165
          |||
Db      1  TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 60

Qy      166 GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 225
          |||
Db      61 GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 120

Qy      226 GATACCACATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 285
          |||
Db     121 GATACCAGATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 180

Qy      286 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 345
          |||
Db     181 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 240

Qy      346 GCGAGAGACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 405
          |||
Db     241 GCGAGGG---GATCGTGGTACTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 297

Qy      405 TCAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
          |||
Db     298 TCAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 349
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RESULT 11

US-08-053-131-157

; Sequence 157, Application US/08053131

; Patent No. 5661016

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 5661016-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 197

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend Kourie and Crew

; STREET: One Market Plaza, Steuart Tower, Suite 200

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94105

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/053,131

; FILING DATE: 26-APR-1993

; CLASSIFICATION: 800

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/990,860

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; FILING DATE: 16-DEC-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/810,279
; FILING DATE: 17-DEC-1991
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/853,408
; FILING DATE: 18-MAR-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Smith, William M.
; REGISTRATION NUMBER: 30,223
; REFERENCE/DOCKET NUMBER: 14643-9-3
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-326-2400
; TELEFAX: 415-326-2422
; INFORMATION FOR SEQ ID NO: 157:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 348 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-053-131-157

```

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Query Match          68.3%; Score 315.6; DB 1; Length 348;
Best Local Similarity 95.7%; Pred. No. 4.4e-77;
Matches 337; Conservative 0; Mismatches 9; Indels 6; Gaps 1;

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Qy      106 TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 165
          |||
Db       1  TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCAGCTACTGGATCGGCTGG 60

Qy      166 GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 225
          |||
Db       61 GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 120

Qy      226 GATACCACATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 285
          |||
Db      121 GATACCAGATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 180

Qy      286 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 345
          |||
Db      181 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 240

Qy      346 GCGAGAGACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCTCC 405
          |||
Db      241 GCGAGACATC-----TTTACTTTGACTACTGGGGCCAGGGAACCCAGGTCACCGTCTCC 294

Qy      406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
          |||
Db      295 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 346

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RESULT 12

US-08-096-762-157

; Sequence 157, Application US/08096762

; Patent No. 5814318

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils
 ; APPLICANT: Kay, Robert M.
 ; TITLE OF INVENTION: Transgenic No. 5814318-Human Animals for
 ; TITLE OF INVENTION: Producing Heterologous Antibodies
 ; NUMBER OF SEQUENCES: 210
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Townsend and Townsend Kourie and Crew
 ; STREET: One Market Plaza, Steuart Tower, Suite 200
 ; CITY: San Francisco
 ; STATE: California
 ; COUNTRY: USA
 ; ZIP: 94105
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: PatentIn Release #1.0, Version #1.25
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/096,762
 ; FILING DATE: 22-JUL-1993
 ; CLASSIFICATION: 800
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 08/053,131
 ; FILING DATE: 26-APR-1993
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 07/990,860
 ; FILING DATE: 16-DEC-1992
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 07/904,068
 ; FILING DATE: 23-JUN-1992
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 07/853,408
 ; FILING DATE: 18-MAR-1992
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 07/810,279
 ; FILING DATE: 17-DEC-1991
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Smith, William M.
 ; REGISTRATION NUMBER: 30,223
 ; REFERENCE/DOCKET NUMBER: 14643-9-4
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: 415-326-2400
 ; TELEFAX: 415-326-2422
 ; INFORMATION FOR SEQ ID NO: 157:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 348 base pairs
 ; TYPE: nucleic acid
 ; STRANDEDNESS: single
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: DNA (genomic)
 US-08-096-762-157

Query Match 68.3%; Score 315.6; DB 1; Length 348;
 Best Local Similarity 95.7%; Pred. No. 4.4e-77;
 Matches 337; Conservative 0; Mismatches 9; Indels 6; Gaps 1;

Qy 106 TCTCTGAAGATCTCTGTAAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 165

```

Db      1 TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCAGCTACTGGATCGGCTGG 60
Qy      166 GTGCGCCAGATGCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 225
Db      61 GTGCGCCAGATGCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 120
Qy      226 GATACCACATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 285
Db      121 GATACCAGATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 180
Qy      286 AGCACC GCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 345
Db      181 AGCACC GCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 240
Qy      346 GCGAGAGACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCTCC 405
Db      241 GCGAGACATC-----TTTACTTTGACTACTGGGGCCAGGGAACCCAGGTCACCGTCTCC 294
Qy      406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
Db      295 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 346

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RESULT 13

US-08-053-131-175

; Sequence 175, Application US/08053131

; Patent No. 5661016

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 5661016-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 197

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend Khourie and Crew

; STREET: One Market Plaza, Steuart Tower, Suite 200

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94105

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/053,131

; FILING DATE: 26-APR-1993

; CLASSIFICATION: 800

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/990,860

; FILING DATE: 16-DEC-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/810,279

; FILING DATE: 17-DEC-1991

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/853,408
 ; FILING DATE: 18-MAR-1992
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Smith, William M.
 ; REGISTRATION NUMBER: 30,223
 ; REFERENCE/DOCKET NUMBER: 14643-9-3
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: 415-326-2400
 ; TELEFAX: 415-326-2422
 ; INFORMATION FOR SEQ ID NO: 175:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 352 base pairs
 ; TYPE: nucleic acid
 ; STRANDEDNESS: single
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: DNA (genomic)
 US-08-053-131-175

Query Match 68.1%; Score 314.8; DB 1; Length 352;
 Best Local Similarity 95.5%; Pred. No. 7.3e-77;
 Matches 336; Conservative 0; Mismatches 12; Indels 4; Gaps 1;

Qy	106	TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG	165
Db	1	TCTCTGAAGATCTCCTGTAAGGTTTCTGGATACAGCTTAACCAGTTATTGGATCGGCTGG	60
Qy	166	GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT	225
Db	61	GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT	120
Qy	226	GATACCACATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC	285
Db	121	GATACCAGATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC	180
Qy	286	AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT	345
Db	181	AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT	240
Qy	346	GCGAGAGACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC	405
Db	241	GCGAGA----CAAAGGGGTACTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC	296
Qy	406	TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA	457
Db	297	TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA	348

RESULT 14

US-08-096-762-175

; Sequence 175, Application US/08096762

; Patent No. 5814318

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 5814318-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 210

Db 61 GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 120
 Qy 226 GATACCACATACAGCCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 285
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 Db 121 GATACCAGATACAGCCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 180
 Qy 286 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 345
 ||||||| ||||||||||||||||||||||||||||||||||||||||||||
 Db 181 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 240
 Qy 346 GCGAGAGACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 405
 ||||||| || ||| ||||||||||||||||||||||||||||||||||||
 Db 241 GCGAGA----CAAAGGGGTACTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 296
 Qy 406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
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 Db 297 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 348

RESULT 15

US-08-053-131-173

; Sequence 173, Application US/08053131

; Patent No. 5661016

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 5661016-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 197

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend Khourie and Crew

; STREET: One Market Plaza, Steuart Tower, Suite 200

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94105

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/053,131

; FILING DATE: 26-APR-1993

; CLASSIFICATION: 800

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/990,860

; FILING DATE: 16-DEC-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/810,279

; FILING DATE: 17-DEC-1991

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/853,408

; FILING DATE: 18-MAR-1992

; ATTORNEY/AGENT INFORMATION:

; NAME: Smith, William M.

; REGISTRATION NUMBER: 30,223

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; REFERENCE/DOCKET NUMBER: 14643-9-3
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-326-2400
; TELEFAX: 415-326-2422
; INFORMATION FOR SEQ ID NO: 173:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 370 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-053-131-173

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Query Match          67.9%; Score 313.8; DB 1; Length 370;
Best Local Similarity 94.2%; Pred. No. 1.4e-76;
Matches 340; Conservative 0; Mismatches 12; Indels 9; Gaps 1;

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Qy      106 TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 165
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Qy      166 GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 225
          |||
Db      61 GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 120

Qy      226 GATACCACATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 285
          |||
Db      121 GATACCAGATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 180

Qy      286 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 345
          |||
Db      181 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 240

Qy      346 GCGAGAGACCAACTGGGCCT-----CTTTGACTACTGGGGCCAGGGAACCCTGGTC 396
          |||
Db      241 GCGAGAGTGGTTCGGGGATTTATTATTTACTTTGACTACTGGGGCCAGGGAACCCTGGTC 300

Qy      397 ACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAG 456
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Db      301 ACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAG 360

Qy      457 A 457
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Db      361 A 361

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Search completed: December 2, 2004, 17:07:37
Job time : 68.4772 secs

GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 17:01:26 ; Search time 354.212 Seconds
(without alignments)

7166.911 Million cell updates/sec

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Perfect score: 462
Sequence: 1 ATGGGGTCAACCGCCATCCT.....CACCTCCTCCAAGAAGCTT 462

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 3694831 seqs, 2747406616 residues

Total number of hits satisfying chosen parameters: 7389662

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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21: /cgn2_6/ptodata/1/pubpna/US60_PUBCOMB.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Match	Query Length	DB ID	Description
1	417	90.3	7558	16	US-10-395-894-5 Sequence 5, Appli
2	417	90.3	7558	17	US-10-695-667-5 Sequence 5, Appli
3	413.8	89.6	469	16	US-10-395-894-26 Sequence 26, Appl
4	413.8	89.6	469	17	US-10-695-667-26 Sequence 26, Appl
5	404	87.4	1401	16	US-10-656-769-31 Sequence 31, Appl

6	399.2	86.4	1389	16	US-10-656-769-33	Sequence 33, Appl
7	392.8	85.0	1392	16	US-10-656-769-35	Sequence 35, Appl
8	363.8	78.7	1612	15	US-10-291-265-48	Sequence 48, Appl
9	357.4	77.4	411	16	US-10-656-769-15	Sequence 15, Appl
10	356.6	77.2	1590	9	US-09-822-830A-595	Sequence 595, App
11	347.2	75.2	441	10	US-09-918-995-16482	Sequence 16482, A
12	345.6	74.8	1576	9	US-09-822-830A-507	Sequence 507, App
13	345.2	74.7	390	15	US-10-226-615-1	Sequence 1, Appli
14	345.2	74.7	390	15	US-10-374-932-1	Sequence 1, Appli
15	345.2	74.7	390	16	US-10-379-741-1	Sequence 1, Appli
c 16	344	74.5	905	15	US-10-002-631C-113	Sequence 113, App
17	327	70.8	421	9	US-09-905-243-6	Sequence 6, Appli
18	320.4	69.4	560	17	US-10-665-383-75	Sequence 75, Appl
19	316	68.4	1572	9	US-09-822-830A-604	Sequence 604, App
20	314.2	68.0	348	10	US-09-851-614-3	Sequence 3, Appli
21	314.2	68.0	348	14	US-10-035-637-3	Sequence 3, Appli
22	313.8	67.9	417	9	US-09-905-243-39	Sequence 39, Appl
23	312.6	67.7	1524	9	US-09-822-849A-136	Sequence 136, App
24	307	66.5	200000	17	US-10-672-764A-31	Sequence 31, Appl
25	304.4	65.9	354	15	US-10-181-324-1	Sequence 1, Appli
26	304	65.8	985	14	US-10-161-803-42	Sequence 42, Appl
27	304	65.8	997	14	US-10-161-803-43	Sequence 43, Appl
28	303.6	65.7	427	9	US-09-905-243-3	Sequence 3, Appli
29	302.6	65.5	514	17	US-10-665-383-79	Sequence 79, Appl
30	297.4	64.4	369	15	US-10-173-551-3	Sequence 3, Appli
31	295.8	64.0	379	15	US-10-041-860-65	Sequence 65, Appl
32	295.8	64.0	379	17	US-10-665-383-25	Sequence 25, Appl
33	292.6	63.3	379	15	US-10-041-860-69	Sequence 69, Appl
34	292.6	63.3	379	15	US-10-041-860-77	Sequence 77, Appl
35	292.6	63.3	379	17	US-10-665-383-33	Sequence 33, Appl
36	292.6	63.3	379	17	US-10-665-383-49	Sequence 49, Appl
37	289	62.6	388	15	US-10-041-860-71	Sequence 71, Appl
38	289	62.6	388	17	US-10-665-383-37	Sequence 37, Appl
39	287.8	62.3	379	15	US-10-041-860-88	Sequence 88, Appl
40	287.8	62.3	379	17	US-10-665-383-69	Sequence 69, Appl
41	284.4	61.6	329	9	US-09-810-936-251	Sequence 251, App
42	284.4	61.6	329	9	US-09-429-755-251	Sequence 251, App
43	284.4	61.6	329	9	US-09-924-400-251	Sequence 251, App
44	284.4	61.6	329	15	US-10-212-679-251	Sequence 251, App
45	284.4	61.6	329	16	US-10-079-137B-251	Sequence 251, App

ALIGNMENTS

RESULT 1

US-10-395-894-5

; Sequence 5, Application US/10395894

; Publication No. US20040033229A1

; GENERAL INFORMATION:

; APPLICANT: MADDON, Paul J.

; APPLICANT: DONOVAN, Gerald P.

; APPLICANT: OLSON, William C.

; APPLICANT: SCHSLKE, No. US20040033229Albert

; APPLICANT: GARDNER, Jason

; APPLICANT: MA, Dangshe

; TITLE OF INVENTION: PSMA ANTIBODIES AND PROTEIN MULTIMERS

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; FILE REFERENCE: P00741.70005.US
; CURRENT APPLICATION NUMBER: US/10/395,894
; CURRENT FILING DATE: 2003-03-24
; PRIOR APPLICATION NUMBER: PCT/US02/33944
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: US 60/335,215
; PRIOR FILING DATE: 2001-10-23
; PRIOR APPLICATION NUMBER: US 60/362,747
; PRIOR FILING DATE: 2002-03-07
; PRIOR APPLICATION NUMBER: US 60/412,618
; PRIOR FILING DATE: 2002-09-20
; NUMBER OF SEQ ID NOS: 33
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5
;   LENGTH: 7558
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Plasmid
US-10-395-894-5
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Query Match          90.3%;  Score 417;  DB 16;  Length 7558;
Best Local Similarity 95.5%;  Pred. No. 1.8e-111;
Matches 442;  Conservative 0;  Mismatches 15;  Indels 6;  Gaps 1;
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Db      923 ATGGGGTCAACCGTCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 982

Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
          |||
Db     963 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 1042

Qy     121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
          |||
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Qy     181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
          |||
Db    1103 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGC 1162

Qy     241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
          |||
Db    1163 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 1222

Qy     301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA-----GAC 354
          |||
Db    1223 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACGGATGGCA 1282

Qy     355 CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 414
          |||
Db    1283 GCAGCTGGCCCCCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 1342

Qy     415 ACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
          |||
Db    1343 ACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCTAGCAAGA 1385
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US-10-695-667-5

US-10-695-667-5

Matches 442; Conservative 0; Mismatches 15; Indels 6; Gaps 1;

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QY	61	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC	120
Db	983	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC	1042
QY	121	TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC	180
Db	1043	TGTAAGGGTTCTGGATACAGCTTTACAGTTACTGGATCGGCTGGGTGCGCCAGATGCCC	1102
QY	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC	240
Db	1103	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGC	1162
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RESULT 3

US-10-395-894-26

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; Sequence 26, Application US/10395894
; Publication No. US20040033229A1
; GENERAL INFORMATION:
; APPLICANT: MADDON, Paul J.
; APPLICANT: DONOVAN, Gerald P.
; APPLICANT: OLSON, William C.
; APPLICANT: SCHSLKE, No. US20040033229Albert
; APPLICANT: GARDNER, Jason
; APPLICANT: MA, Dangshe
; TITLE OF INVENTION: PSMA ANTIBODIES AND PROTEIN MULTIMERS
; FILE REFERENCE: P00741.70005.US
; CURRENT APPLICATION NUMBER: US/10/395,894
; CURRENT FILING DATE: 2003-03-24
; PRIOR APPLICATION NUMBER: PCT/US02/33944
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: US 60/335,215
; PRIOR FILING DATE: 2001-10-23
; PRIOR APPLICATION NUMBER: US 60/362,747
; PRIOR FILING DATE: 2002-03-07
; PRIOR APPLICATION NUMBER: US 60/412,618
; PRIOR FILING DATE: 2002-09-20
; NUMBER OF SEQ ID NOS: 33
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 26
; LENGTH: 469
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Includes BamHI/BglII cloning junction, signal peptide, V
region, portion
; OTHER INFORMATION: of C region and 3'XbaI/NheI (heavy) or NheI (light)
cloning junction
US-10-395-894-26

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Query Match      89.6%; Score 413.8; DB 16; Length 469;
Best Local Similarity 96.0%; Pred. No. 1.2e-110;
Matches 437; Conservative 0; Mismatches 12; Indels 6; Gaps 1;

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Db      71  |||||GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 130
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Db     131  |||||TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 190
Qy     181  GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
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Qy     241  CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
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US-10-695-667-26

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; Sequence 26, Application US/10695667
; Publication No. US20040161776A1
; GENERAL INFORMATION:
; APPLICANT: MADDON, Paul J.
; APPLICANT: DONOVAN, Gerald P.
; APPLICANT: OLSON, William C.
; APPLICANT: SCHSLKE, Norbert
; APPLICANT: GARDNER, Jason
; APPLICANT: MA, Dangshe
; TITLE OF INVENTION: PSMA FORMULATIONS AND USES THEREOF
; FILE REFERENCE: P0741.70006US00
; CURRENT APPLICATION NUMBER: US/10/695,667
; CURRENT FILING DATE: 2003-10-27
; PRIOR APPLICATION NUMBER: US 10/395,894
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: PCT/US02/33944
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: US 60/335,215
; PRIOR FILING DATE: 2001-10-23
; PRIOR APPLICATION NUMBER: US 60/362,747
; PRIOR FILING DATE: 2002-03-07
; PRIOR APPLICATION NUMBER: US 60/412,618
; PRIOR FILING DATE: 2002-09-20

```

```

; NUMBER OF SEQ ID NOS: 33
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 26
; LENGTH: 469
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Includes BamHI/BglIII cloning junction, signal peptide, V
region, portion
; OTHER INFORMATION: of C region and 3'XbaI/NheI (heavy) or NheI (light)
cloning junction
US-10-695-667-26

```

```

Query Match          89.6%; Score 413.8; DB 17; Length 469;
Best Local Similarity 96.0%; Pred. No. 1.2e-110;
Matches 437; Conservative 0; Mismatches 12; Indels 6; Gaps 1;

```

```

Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      11 ATGGGGTCAACCGTCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 70

Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db      71 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 130

Qy     121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db     131 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 190

Qy     181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db     191 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGC 250

Qy     241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db     251 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 310

Qy     301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA-----GAC 354
      |||
Db     311 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACGGATGGCA 370

Qy     355 CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 414
      |||
Db     371 GCAGCTGGCCCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 430

Qy     415 ACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTC 449
      |||
Db     431 ACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTC 465

```

RESULT 5

US-10-656-769-31

; Sequence 31, Application US/10656769

; Publication No. US20040097712A1

; GENERAL INFORMATION:

; APPLICANT: Varnum, Brian

; APPLICANT: Witte, Alison

```

; APPLICANT: Vezina, Chris
; APPLICANT: Wong, Lu Min
; APPLICANT: Qian, Xueming
; TITLE OF INVENTION: Therapeutic Human Anti-IL-1R Monoclonal Antibody
; FILE REFERENCE: 01,1554
; CURRENT APPLICATION NUMBER: US/10/656,769
; CURRENT FILING DATE: 2003-09-05
; NUMBER OF SEQ ID NOS: 79
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 31
; LENGTH: 1401
; TYPE: DNA
; ORGANISM: Homo Sapiens
US-10-656-769-31

```

```

Query Match          87.4%; Score 404; DB 16; Length 1401;
Best Local Similarity 93.9%; Pred. No. 9.3e-108;
Matches 432; Conservative 0; Mismatches 25; Indels 3; Gaps 1;

```

```

Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db     61 GTGCAGCTGATGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db    121 TGTAAGGGTTCTGGATACAGCTTTTCCCTTCCACTGGATCGCCTGGGTGCGCCAGATGCCC 180

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCCATCCTGGTGCTCTGATACCAGATACAGC 240

Qy    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCAACAGCGCCACCTACCTG 300

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA---CCAA 357
      |||
Db    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTTCTGTGCGAGACAAAGGGAA 360

Qy    358 CTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACC 417
      |||
Db    361 CTCGACTACTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCTAGTGCCTCCACC 420

Qy    418 AAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db    421 AAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 460

```

RESULT 6

```

US-10-656-769-33
; Sequence 33, Application US/10656769
; Publication No. US20040097712A1
; GENERAL INFORMATION:

```


; Publication No. US20040097712A1
; GENERAL INFORMATION:
; APPLICANT: Varnum, Brian
; APPLICANT: Witte, Alison
; APPLICANT: Vezina, Chris
; APPLICANT: Wong, Lu Min
; APPLICANT: Qian, Xueming
; TITLE OF INVENTION: Therapeutic Human Anti-IL-1R Monoclonal Antibody
; FILE REFERENCE: 01,1554
; CURRENT APPLICATION NUMBER: US/10/656,769
; CURRENT FILING DATE: 2003-09-05
; NUMBER OF SEQ ID NOS: 79
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 35
; LENGTH: 1392
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-656-769-35

Query Match 85.0%; Score 392.8; DB 16; Length 1392;
Best Local Similarity 92.4%; Pred. No. 1.7e-104;
Matches 425; Conservative 0; Mismatches 32; Indels 3; Gaps 1;

```

Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db     61 GTGCAGCTGATGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db    121 TGTAAGGGTTCTGGATACAGCTTTTCTTCCACTGGATCGCCTGGGTGCGCCAGATGCCC 180

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCCATCCTGGTGCCTCTGATACCAGATACAGC 240

Qy    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAACCTCCAACAGCGCCACCTACCTG 300

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA---CCAA 357
      |||
Db    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTTCTGTGCGAGACAAAGGGAA 360

Qy    358 CTGGGCCTCTTTGACTACTGGGGCCAGGGAACCTGGTCAACCGTCTCCTCAGCCTCCACC 417
      |||
Db    361 CTCGACTACTTTGACTACTGGGGCCAGGGAACCTGGTCAACCGTCTCTAGTGCCAGCACC 420

Qy    418 AAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db    421 AAGGGCCCATCCGTCTTCCCCCTGGCGCCCTGCTCCAGGA 460

```

RESULT 8

US-10-291-265-48

; Sequence 48, Application US/10291265
; Publication No. US20030232054A1
; GENERAL INFORMATION:
; APPLICANT: Hyseq, Inc.
; APPLICANT: Tang et al
; TITLE OF INVENTION: No. US20030232054A1el Nucleic Acids and Polypeptides
; FILE REFERENCE: 21272-017 (785)
; CURRENT APPLICATION NUMBER: US/10/291,265
; CURRENT FILING DATE: 2000-01-25
; PRIOR APPLICATION NUMBER: 09/491,404
; PRIOR FILING DATE: 2000-01-25
; PRIOR APPLICATION NUMBER: 09/617,746
; PRIOR FILING DATE: 2000-07-17
; PRIOR APPLICATION NUMBER: 09/631,451
; PRIOR FILING DATE: 2000-08-03
; PRIOR APPLICATION NUMBER: 09/633,870
; PRIOR FILING DATE: 2000-09-15
; NUMBER OF SEQ ID NOS: 944
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 48
; LENGTH: 1612
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (43)..(1464)
US-10-291-265-48

Query Match 78.7%; Score 363.8; DB 15; Length 1612;
Best Local Similarity 87.3%; Pred. No. 4.9e-96;
Matches 420; Conservative 0; Mismatches 37; Indels 24; Gaps 1;

Qy 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
|||
Db 43 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTGCAAGGAGTCTGTGCTGAG 102

Qy 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
|||
Db 103 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTGTGAAGATTTC 162

Qy 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
|||
Db 163 TGTAAGGGCTCTGGATACAGCTTTAGCGACTACTGGGTGCGCTGGGTGCGCCAGTCGCCC 222

Qy 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
| |||
Db 223 GACAAAGGCCTGGCGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGGTACAGC 282

Qy 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
|||
Db 283 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 342

Qy 301 CAGTGGAGCAGCCTGAAGGCCCTCGGACACCGCCATGTATTACTGTGCGAGAG----- 352
|||
Db 343 CAGTGGAGTAGCCTGAAGGACTCGGACACCGCCATGTATTATTGTGCGAGAGGTGCCCCGA 402

[illegible]

```

Db      241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAACCTCCAACAGCGCCACCTACCTG 300
Qy      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA---CCAA 357
        |||
Db      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTTCTGTGCGAGACAAAGGGAA 360
Qy      358 CTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTC 404
        |||
Db      361 CTCGACTACTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTC 407

```

RESULT 10

US-09-822-830A-595

; Sequence 595, Application US/09822830A

; Patent No. US20020142952A1

; GENERAL INFORMATION:

; APPLICANT: Genetics Institute, Inc.

; APPLICANT: Wong, Gordon G.

; APPLICANT: Clark, Hilary

; APPLICANT: Fechtel, Kim

; APPLICANT: Agostino, Michael J.

; APPLICANT: Howes, Steven H.

; APPLICANT: Resnick, Richard J.

; APPLICANT: Gulukota, Kamalakar.

; APPLICANT: Graham, James R.

; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING NOVEL SECRETED PROTEINS

; FILE REFERENCE: GIN 6402

; CURRENT APPLICATION NUMBER: US/09/822,830A

; CURRENT FILING DATE: 2001-03-29

; PRIOR APPLICATION NUMBER: 60/195,604

; PRIOR FILING DATE: 2000-04-06

; NUMBER OF SEQ ID NOS: 631

; SOFTWARE: PatentIn Ver. 2.0

; SEQ ID NO 595

; LENGTH: 1590

; TYPE: DNA

; ORGANISM: Homo sapiens

US-09-822-830A-595

Query Match 77.2%; Score 356.6; DB 9; Length 1590;

Best Local Similarity 87.0%; Pred. No. 6.2e-94;

Matches 408; Conservative 0; Mismatches 49; Indels 12; Gaps 1;

```

Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
        |||
Db      51 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAGGGAGTCTGTGCCGAG 110
Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
        |||
Db      111 GTGAAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGACTCTCTGACGATCTCC 170
Qy      121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
        |||
Db      171 TGTAAGGGCTCTGGATACAGCTTCCGCAGTTACTGGATCGCCTGGGTGCGCCAGATGCCC 230
Qy      181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
        |||

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Db      231 GGGAAAGGCCTGGAGTGGATGGGAATCATTATCCTGGGGACTCTGACACCAAATACAGT 290
Qy      241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
        |||||  |||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||
Db      291 CCGTCCGCCCACGGCCAGGTCACCATCTCAGTCGACAAGTCCGTCGCCACCGCCTACCTG 350
Qy      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACT- 359
        |||||  |  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||
Db      351 CAGTGGCGGAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGACGAACCCCTTT 410
Qy      360 -----GGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCA 408
        |  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||
Db      411 CACAGCGGGAGTTTCGCCTTTGATACTTGGGGCCAAGGGACATCGGTCATTGTCTCTTCA 470
Qy      409 GCCTCCACCAAGGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
        |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||
Db      471 GCCTCCACCAAGGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 519

```

RESULT 11

```

US-09-918-995-16482
; Sequence 16482, Application US/09918995
; Publication No. US20030073623A1
; GENERAL INFORMATION:
; APPLICANT: Hyseq, Inc.
; TITLE OF INVENTION: NOVEL NUCLEIC ACID SEQUENCES OBTAINED
; TITLE OF INVENTION: FROM VARIOUS cDNA LIBRARIES
; FILE REFERENCE: 20411-756
; CURRENT APPLICATION NUMBER: US/09/918,995
; CURRENT FILING DATE: 2001-07-30
; PRIOR APPLICATION NUMBER: US/09/235,076
; PRIOR FILING DATE: 1999-01-20
; NUMBER OF SEQ ID NOS: 38054
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 16482
; LENGTH: 441
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (1)...(441)
; OTHER INFORMATION: n = A,T,C or G
US-09-918-995-16482

```

```

Query Match          75.2%; Score 347.2; DB 10; Length 441;
Best Local Similarity 94.0%; Pred. No. 3e-91;
Matches 374; Conservative 0; Mismatches 18; Indels 6; Gaps 1;

```

```

Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
        |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||
Db      44 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGCTCTCCAAGGAGTCTGTGCCGAG 103
Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
        |  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||
Db      104 TTCCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 163
Qy      121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180

```

```

      |||
Db      164 TGTAAGGGTTCTGGATACAGCTTTACCAATTACTGGATCGGCTGGGTGCGCCAGATGCCC 223
      |||
Qy      181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db      224 GGGAAAGGCCTGGAGTGGATGGGGACCATCTATCCTGGTGACTCTGATACCAGATACAGC 283
      |||
Qy      241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db      284 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 343
      |||
Qy      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCA---- 356
      |||
Db      344 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACGAAACTGG 403
      |||
Qy      357 --ACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCT 392
      |||
Db      404 NGATCGGAGTACTTTGACTACTGGGGCCAGGGAACCCT 441

```

RESULT 12

US-09-822-830A-507

; Sequence 507, Application US/09822830A

; Patent No. US20020142952A1

; GENERAL INFORMATION:

; APPLICANT: Genetics Institute, Inc.

; APPLICANT: Wong, Gordon G.

; APPLICANT: Clark, Hilary

; APPLICANT: Fechtel, Kim

; APPLICANT: Agostino, Michael J.

; APPLICANT: Howes, Steven H.

; APPLICANT: Resnick, Richard J.

; APPLICANT: Gulukota, Kamalakar

; APPLICANT: Graham, James R.

; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING NOVEL SECRETED PROTEINS

; FILE REFERENCE: GIN 6402

; CURRENT APPLICATION NUMBER: US/09/822,830A

; CURRENT FILING DATE: 2001-03-29

; PRIOR APPLICATION NUMBER: 60/195,604

; PRIOR FILING DATE: 2000-04-06

; NUMBER OF SEQ ID NOS: 631

; SOFTWARE: PatentIn Ver. 2.0

; SEQ ID NO 507

; LENGTH: 1576

; TYPE: DNA

; ORGANISM: Homo sapiens

US-09-822-830A-507

Query Match 74.8%; Score 345.6; DB 9; Length 1576;

Best Local Similarity 87.4%; Pred. No. 9.9e-91;

Matches 402; Conservative 0; Mismatches 54; Indels 4; Gaps 2;

```

Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      47 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCCGTTCTCCAAGGAGTCTGTGCCGAA 106
      |||
Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

```

```

      |||
Db      107 GTGCAGCTGGTGCAGTCCGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGCGGATCTCC 166
Qy      121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db      167 TGTCAGGGTTCTGGATACACCTTCACCAGTTACCGGATCAGCTGGGTGCGCCAGATGCCC 226
Qy      181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db      227 GGGAAAGGCCTGGAGTGGATGGGTAAAATTGATCCTGCTGACTCTTACACGTCTACGAC 286
Qy      241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db      287 CCGGCCTTCCAAGGCCACGTCACCATCTCAATTGACAAGTCCATCAGCACTGCCTACCTG 346
Qy      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGC--GAGAGACCAA 357
      |||
Db      347 CAGTGGAGTAG-CTGAAGGCCTCGGACAGCGCCATTTATTACTGCACGAAGAGCGCTCAC 405
Qy      358 CTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCAACCGTCTCCTCAGCCTCCACC 417
      |||
Db      406 GTATTACGATATTTTGACTGGGGTCAGGGGACCCTGGTCAACCGTCTCCTCAGCCTCCACC 465
Qy      418 AAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db      466 AAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 505

```

RESULT 13

US-10-226-615-1

; Sequence 1, Application US/10226615

; Publication No. US20030138421A1

; GENERAL INFORMATION:

; APPLICANT: van de Winkel, Jan G.J.

; APPLICANT: van Dijk, Marcus Antonius

; APPLICANT: Gerritsen, Arnout F.

; APPLICANT: Schuurman, Janine

; APPLICANT: Baadsgaard, Ole

; TITLE OF INVENTION: HUMAN ANTIBODIES SPECIFIC FOR INTERLEUKIN 15 (IL-15)

; FILE REFERENCE: GMI-024

; CURRENT APPLICATION NUMBER: US/10/226,615

; CURRENT FILING DATE: 2002-08-23

; PRIOR APPLICATION NUMBER: US 60/314,731

; PRIOR FILING DATE: 2001-08-23

; NUMBER OF SEQ ID NOS: 4

; SOFTWARE: FastSEQ for Windows Version 4.0

; SEQ ID NO 1

; LENGTH: 390

; TYPE: DNA

; ORGANISM: Homo sapiens

; FEATURE:

; NAME/KEY: CDS

; LOCATION: (1)...(390)

US-10-226-615-1

Query Match 74.7%; Score 345.2; DB 15; Length 390;

Best Local Similarity 94.6%; Pred. No. 1.1e-90;

Matches 369; Conservative 0; Mismatches 18; Indels 3; Gaps 1;

```

Qy      58 GAGGTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATC 117
      |||
Db      1  GAGGTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATC 60

Qy     118 TCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATG 177
      |||
Db      61 TCCTGTAAGGGTTCTGGATACTTCTTTACCACCTACTGGATCGGCTGGGTGCGCCAGATG 120

Qy     178 CCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATAC 237
      |||
Db     121 CCCGGGAAAGGCCTGGAGTATATGGGGATCATCTATCCTGGTGACTCTGATACCAGATAC 180

Qy     238 AGCCCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTAC 297
      |||
Db     181 AGCCCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTAC 240

Qy     298 CTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA---GAC 354
      |||
Db     241 CTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGGGGGT 300

Qy     355 CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCTCCTCAGCCTCC 414
      |||
Db     301 AACTGGAAGTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCTCCTCAGCCTCC 360

Qy     415 ACCAAGGGCCCATCGGTCTTCCCCCTGGCA 444
      |||
Db     361 ACCAAGGGCCCATCGGTCTTCCCCCTGGCA 390

```

RESULT 14

US-10-374-932-1

; Sequence 1, Application US/10374932

; Publication No. US20030235586A1

; GENERAL INFORMATION:

; APPLICANT: van de Winkel, Jan G.J.

; APPLICANT: van Dijk, Marcus Antonius

; APPLICANT: Schuurman, Janine

; APPLICANT: Gerritsen, Arnout F.

; APPLICANT: Baadsgaard, Ole

; APPLICANT: Petersen, Jorgen

; TITLE OF INVENTION: HUMAN ANTIBODIES SPECIFIC FOR INTERLEUKIN 15 (IL-15)

; FILE REFERENCE: GMI-024CP

; CURRENT APPLICATION NUMBER: US/10/374,932

; CURRENT FILING DATE: 2003-02-26

; PRIOR APPLICATION NUMBER: US 60/314,731

; PRIOR FILING DATE: 2001-08-23

; PRIOR APPLICATION NUMBER: US 10/226615

; PRIOR FILING DATE: 2002-08-23

; NUMBER OF SEQ ID NOS: 31

; SOFTWARE: FastSEQ for Windows Version 4.0

; SEQ ID NO 1

; LENGTH: 390

; TYPE: DNA

; ORGANISM: Homo sapiens

; FEATURE:

; NAME/KEY: CDS
; LOCATION: (1)...(390)
US-10-374-932-1

Query Match 74.7%; Score 345.2; DB 15; Length 390;
Best Local Similarity 94.6%; Pred. No. 1.1e-90;
Matches 369; Conservative 0; Mismatches 18; Indels 3; Gaps 1;

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Qy     118 TCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATG 177
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Db      61 TCCTGTAAGGGTTCTGGATACCTTTTACCACCTACTGGATCGGCTGGGTGCGCCAGATG 120

Qy     178 CCCGGGAAAGGCCCTGGAGTGGATGGGGATCATCTATCCTGGTGAAGTCTGATACCACATAC 237
      |||
Db     121 CCCGGGAAAGGCCCTGGAGTATATGGGGATCATCTATCCTGGTGAAGTCTGATACCAGATAC 180

Qy     238 AGCCCGTCCTTCCAAGGCCAGGTCAACCATCTCAGCCGACAAGTCCATCAGCACCGCCTAC 297
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Db     181 AGCCCGTCCTTCCAAGGCCAGGTCAACCATCTCAGCCGACAAGTCCATCAGCACCGCCTAC 240

Qy     298 CTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA---GAC 354
      |||
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      |||
Db     301 AACTGGAAGTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCAACCGTCTCCTCAGCCTCC 360

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RESULT 15

US-10-379-741-1

; Sequence 1, Application US/10379741
; Publication No. US20040071702A1
; GENERAL INFORMATION:
; APPLICANT: van de Winkel, Jan G.J.
; APPLICANT: van Dijk, Marcus Antonius
; APPLICANT: Schuurman, Janine
; APPLICANT: Gerritsen, Arnout F.
; APPLICANT: Baadsgaard, Ole
; APPLICANT: Petersen, Jorgen
; TITLE OF INVENTION: HUMAN ANTIBODIES SPECIFIC FOR INTERLEUKIN 15 (IL-15)
; FILE REFERENCE: GMI-024CP2
; CURRENT APPLICATION NUMBER: US/10/379,741
; CURRENT FILING DATE: 2003-03-05
; PRIOR APPLICATION NUMBER: US 60/314,731
; PRIOR FILING DATE: 2001-08-23
; PRIOR APPLICATION NUMBER: US 10/226615
; PRIOR FILING DATE: 2002-08-23
; NUMBER OF SEQ ID NOS: 31

; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 390
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)...(390)
US-10-379-741-1

Query Match 74.7%; Score 345.2; DB 16; Length 390;
Best Local Similarity 94.6%; Pred. No. 1.1e-90;
Matches 369; Conservative 0; Mismatches 18; Indels 3; Gaps 1;

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Qy      58 GAGGTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATC 117
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Db      1 GAGGTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATC 60

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Qy     178 CCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATAC 237
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Db     181 AGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTAC 240

Qy     298 CTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA---GAC 354
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Db     241 CTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGGGGGT 300

Qy     355 CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 414
      |||
Db     301 AACTGGAAGTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 360

Qy     415 ACCAAGGGCCCATCGGTCTTCCCCCTGGCA 444
      |||
Db     361 ACCAAGGGCCCATCGGTCTTCCCCCTGGCA 390
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Search completed: December 3, 2004, 02:43:20
Job time : 355.212 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 12:19:03 ; Search time 2404.82 Seconds
(without alignments)
7000.593 Million cell updates/sec

Title: US-08-728-463B-207

Perfect score: 462
Sequence: 1 ATGGGGTCAACCGCCATCCT.....CACCTCCTCCAAGAAGCTT 462

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 32822875 seqs, 18219865908 residues

Total number of hits satisfying chosen parameters: 65645750

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : EST:*
1: gb_est1:*
2: gb_est2:*
3: gb_htc:*
4: gb_est3:*
5: gb_est4:*
6: gb_est5:*
7: gb_est6:*
8: gb_gss1:*
9: gb_gss2:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	%		Query		DB	ID	Description
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2	396.8	85.9	875	5	BQ711293	BQ711293	AGENCOURT
3	396.8	85.9	921	5	BQ710635	BQ710635	AGENCOURT
4	396.8	85.9	1114	4	BM920470	BM920470	AGENCOURT
5	389.2	84.2	795	4	BG685604	BG685604	602637582
6	385.2	83.4	994	5	BQ711534	BQ711534	AGENCOURT
7	382.8	82.9	584	2	AW630043	AW630043	hh74e04.y
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9	380	82.3	880	5	BQ712042	BQ712042	AGENCOURT
10	379.8	82.2	857	4	BI906125	BI906125	603062533
11	379.4	82.1	489	2	AW403183	AW403183	UI-HF-BK0
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14	375.4	81.3	573	7	CR545747	CR545747	DKFZp470L
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16	371	80.3	591	6	CD705168	CD705168	EST21695
17	369	79.9	843	4	BG754240	BG754240	602709791
18	368.8	79.8	487	2	AW403158	AW403158	UI-HF-BK0
19	366.4	79.3	607	4	BG755575	BG755575	602716258
20	365.4	79.1	438	2	AW402496	AW402496	UI-HF-BK0

21	365	79.0	883	5	BQ707121	BQ707121	AGENCOURT
22	365	79.0	894	4	BM008443	BM008443	603617439
23	362.8	78.5	888	4	BG341556	BG341556	602463662
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25	362.4	78.4	896	4	BG341504	BG341504	602463606
26	357.6	77.4	652	4	BG757902	BG757902	602714934
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28	357.4	77.4	737	4	BG485039	BG485039	602503853
29	356.6	77.2	949	5	BQ711238	BQ711238	AGENCOURT
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43	339.4	73.5	965	5	BQ882232	BQ882232	AGENCOURT
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ALIGNMENTS

RESULT 1

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LOCUS BQ707110 850 bp mRNA linear EST 16-JUL-2002

DEFINITION AGENCOURT_8349898 NIH_MGC_113 Homo sapiens cDNA clone IMAGE:6280441
5', mRNA sequence.

ACCESSION BQ707110

VERSION BQ707110.1 GI:21846009

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 850)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Dr. Mark Watson

cDNA Library Preparation: Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM2471 row: k column: 02

High quality sequence stop: 667.

FEATURES
source

Location/Qualifiers

1. .850
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/mol_type="mRNA"
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/note="Organ: spleen; Vector: pOTB7; Site_1: XhoI; Site_2: EcoRI; cDNA made by oligo-dT priming. Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies). Note: this is a NIH_MGC Library."

ORIGIN

Query Match 86.5%; Score 399.4; DB 5; Length 850;
Best Local Similarity 92.1%; Pred. No. 2e-90;
Matches 421; Conservative 0; Mismatches 36; Indels 0; Gaps 0;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
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Db     383 TACTACATGGACGTC'TGGGGCAAAGGGACCACGGTCAACCGTCTCCTCAGCCTCCACCAAG 442

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RESULT 2
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LOCUS BQ711293 875 bp mRNA linear EST 16-JUL-2002
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 5', mRNA sequence.
 ACCESSION BQ711293
 VERSION BQ711293.1 GI:21850192
 KEYWORDS EST.
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 REFERENCE 1 (bases 1 to 875)
 AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.
 TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
 JOURNAL Unpublished (1999)
 COMMENT Contact: Robert Strausberg, Ph.D.
 Email: cgapbs-r@mail.nih.gov
 Tissue Procurement: Dr. Mark Watson
 cDNA Library Preparation: Rubin Laboratory
 cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
 DNA Sequencing by: Agencourt Bioscience Corporation
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LLNL at:
<http://image.llnl.gov>
 Plate: LLCM2471 row: a column: 08
 High quality sequence stop: 594.

FEATURES Location/Qualifiers
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 /organism="Homo sapiens"
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 /lab_host="DH10B (phage-resistant)"
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 /note="Organ: spleen; Vector: pOTB7; Site_1: XhoI; Site_2:
 EcoRI; cDNA made by oligo-dT priming. Directionally cloned
 into EcoRI/XhoI sites using the following 5' adaptor:
 GGCACGAG(G). Library constructed by Ling Hong in the
 laboratory of Gerald M. Rubin (University of California,
 Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and
 Superscript II RT (Life Technologies). Note: this is a
 NIH_MGC Library."

ORIGIN

Query Match 85.9%; Score 396.8; DB 5; Length 875;
 Best Local Similarity 92.2%; Pred. No. 8.9e-90;
 Matches 435; Conservative 0; Mismatches 22; Indels 15; Gaps 1;

Qy 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
 |||
 Db 28 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 87
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 Qy 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCC 180
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Db 208 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACGACATACAGC 267

Qy 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
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Qy 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA----- 353
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Db 388 CCTGCTACTCAACTCCAACCTTTTGACCACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 447

Qy 406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
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Db 448 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 499

RESULT 3

BQ710635

LOCUS BQ710635 921 bp mRNA linear EST 16-JUL-2002
 DEFINITION AGENCOURT_8475002 NIH_MGC_113 Homo sapiens cDNA clone IMAGE:6301375
 5', mRNA sequence.

ACCESSION BQ710635

VERSION BQ710635.1 GI:21849534

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 921)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Dr. Mark Watson

cDNA Library Preparation: Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM2517 row: c column: 08

High quality sequence stop: 662.

FEATURES

source

Location/Qualifiers

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/lab_host="DH10B (phage-resistant)"

/clone_lib="NIH_MGC_113"
 /note="Organ: spleen; Vector: pOTB7; Site_1: XhoI; Site_2:
 EcoRI; cDNA made by oligo-dT priming. Directionally cloned
 into EcoRI/XhoI sites using the following 5' adaptor:
 GGCACGAG(G). Library constructed by Ling Hong in the
 laboratory of Gerald M. Rubin (University of California,
 Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and
 Superscript II RT (Life Technologies). Note: this is a
 NIH_MGC Library."

ORIGIN

Query Match 85.9%; Score 396.8; DB 5; Length 921;
 Best Local Similarity 92.2%; Pred. No. 9e-90;
 Matches 435; Conservative 0; Mismatches 22; Indels 15; Gaps 1;

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Qy     354 -----CCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 405
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RESULT 4

BM920470

LOCUS BM920470 1114 bp mRNA linear EST 12-MAR-2002
 DEFINITION AGENCOURT_6709628 NIH_MGC_122 Homo sapiens cDNA clone IMAGE:5750445
 5', mRNA sequence.

ACCESSION BM920470

VERSION BM920470.1 GI:19370849

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 1114)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.
 Email: cgapbs-r@mail.nih.gov
 Tissue Procurement: Life Technologies, Inc.
 cDNA Library Preparation: Life Technologies, Inc.
 cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
 DNA Sequencing by: Agencourt Bioscience Corporation
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LLNL at:
<http://image.llnl.gov>
 Plate: LLAM12781 row: g column: 22
 High quality sequence stop: 736.

FEATURES Location/Qualifiers

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 /note="Organ: pooled lung and spleen; Vector: pCMV-SPORT6;
 Site_1: NotI; Site_2: EcoRV (destroyed); RNA source
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 spleen, and 20-22 week male spleens. Library is oligo-dT
 primed and directionally cloned (EcoRV site is destroyed
 upon cloning). Average insert size 1.4 kb, insert size
 range 1-3 kb. Library is normalized and enriched for
 full-length clones and was constructed by C. Gruber
 (Invitrogen). Research Genetics tracking code 026. Note:
 this is a NIH_MGC Library."

ORIGIN

Query Match 85.9%; Score 396.8; DB 4; Length 1114;
 Best Local Similarity 92.9%; Pred. No. 9.3e-90;
 Matches 416; Conservative 0; Mismatches 32; Indels 0; Gaps 0;

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Db      69 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 128

Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
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Db      129 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 188

Qy      121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
        |||
Db      189 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 248

Qy      181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGAAGTCTGATACCACATACAGC 240
        |||
Db      249 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGAAGTCTGATACCAGATACAGC 308

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Qy 241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 309 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 368
 Qy 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||| |
 Db 369 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACATGGAGGG 428
 Qy 361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420
 | |||||||||||||||||||||||||||||||||||||||| |
 Db 429 GCTGGATTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGGGAGTGCATCC 488
 Qy 421 GGCCCATCGGTCTTCCCCCTGGCACCCCT 448
 | |||| | | |||||| | |||
 Db 489 GCCCAACCCTTTTCCCCCTCGTCTCCT 516

RESULT 5

BG685604

LOCUS BG685604 795 bp mRNA linear EST 01-MAY-2001

DEFINITION 602637582F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4765028 5',
 mRNA sequence.

ACCESSION BG685604

VERSION BG685604.1 GI:13917001

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 795)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Louis M. Staudt, M.D., Ph.D.

cDNA Library Preparation: Ling Hong/Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM1623 row: d column: 21

High quality sequence stop: 789.

FEATURES

source

Location/Qualifiers

1. .795

/organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"

/clone="IMAGE:4765028"

/tissue_type="primary B-cells from tonsils (cell line)"

/lab_host="DH10B (phage-resistant)"

/clone_lib="NIH_MGC_48"

/note="Organ: B-cells; Vector: pOTB7; Site_1: XhoI;

Site_2: EcoRI; cDNA made by oligo-dT priming.

Directionally cloned into EcoRI/XhoI sites using the

following 5' adaptor: GGCACGAG(G). Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies). Note: this is a NIH_MGC Library."

ORIGIN

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Query Match          84.2%; Score 389.2; DB 4; Length 795;
Best Local Similarity 90.8%; Pred. No. 7.4e-88;
Matches 434; Conservative 0; Mismatches 23; Indels 21; Gaps 1;

Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db     37 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 96

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db     97 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 156

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db    157 TGTAAGGGTTCTGGATACAGCTTTACCAACTACTGGATCGGCTGGGTGCGCCAGATGCCC 216

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db    217 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTAATACCAGATACAGC 276

Qy    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db    277 CCGTCCTTCCAAGGCCAGGTCATTATTTTCAGCCGACAAGTCCATCAGTACCGCCTACCTG 336

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA----- 351
      |||
Db    337 CTATGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACATGGTGGT 396

Qy    352 -----GACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACC 399
      |||
Db    397 TACTATGATTTCGGGGACCCCGACTACATTGACTCCTGGGGCCAGGGAACCCTAGTCACC 456

Qy    400 GTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db    457 GTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 514

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RESULT 6

BQ711534

LOCUS BQ711534 994 bp mRNA linear EST 16-JUL-2002

DEFINITION AGENCOURT_8292330 NIH_MGC_113 Homo sapiens cDNA clone IMAGE:6280839 5', mRNA sequence.

ACCESSION BQ711534

VERSION BQ711534.1 GI:21850433

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

[illegible]

Qy	301	CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA-----	351
Db	320	CAGTGGGACAACCTGCAGGCCTCGGACAGCGCCATGTATTACTGTGCGAGACAGGGGGGG	379
Qy	352	GACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCTCCTCAGCC	411
Db	380	GATGATGACC ACTTCTTTGACTCCTGGGGCCAGGGAACGCTGCTCACCGTCTCCGCAGCC	439
Qy	412	TCCACCAAGGGCCC ATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA	457
Db	440	TCCACCAAGGGCCC ATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA	485

RESULT 7

AW630043

LOCUS AW630043 584 bp mRNA linear EST 31-MAR-2000

DEFINITION hh74e04.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2968542 5' similar to gb:M87789 IG GAMMA-1 CHAIN C REGION (HUMAN);, mRNA sequence.

ACCESSION AW630043

VERSION AW630043.1 GI:7376833

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 584)

AUTHORS NCI-CGAP <http://www.ncbi.nlm.nih.gov/ncicgap>.

TITLE National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
Tumor Gene Index

JOURNAL Unpublished (1997)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Chris Moskaluk, M.D., Ph.D., Michael R.

Emmert-Buck, M.D., Ph.D. cDNA Library Preparation: Life

Technologies, Inc. cDNA Library Arrayed by: Christa Prange, The

I.M.A.G.E. Consortium DNA Sequencing by: Washington University

Genome Sequencing Center

Clone distribution: NCI-CGAP clone distribution information can be

found through the I.M.A.G.E. Consortium/LLNL at:

image.llnl.gov/image/html/iresources.shtml

Seq primer: -40RP from Gibco

High quality sequence stop: 437.

FEATURES	Location/Qualifiers
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source

1. .584

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/organism="Homo sapiens"
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/mol type="mRNA"
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/db xref="taxon:9606"
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/clone="IMAGE:2968542"
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/tissue_type="2 pooled high-grade transitional cell tumors"
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```
/lab host="DH10B"
```

```
/clone lib="NCI CGAP GU1"
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/note="Organ: genitourinary tract; Vector: pCMV-SPORT6;

Site 1: SalI; Site 2: NotI; Cloned unidirectionally.

Primer: Oligo dT. Library constructed by Life

Technologies."

ORIGIN

Query Match 82.9%; Score 382.8; DB 2; Length 584;
 Best Local Similarity 90.4%; Pred. No. 2.9e-86;
 Matches 424; Conservative 0; Mismatches 33; Indels 12; Gaps 1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
        |||
Db      36 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 95

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
        |||
Db     96 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 155

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
        |||
Db    156 TGTGAGGGTTCTGGATACATCTTTAACAACACTACTGGTTCGCCTGGGTGCGCCAGATGCCC 215

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
        |||
Db    216 GGGGAAGGCCTGGAGTGGATAGGGGTCATCTATCCTGGTGACTCTGATACCAGATACAGC 275

Qy    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
        |||
Db    276 CCGTCCTTCCAAGGCCAAGTCACCATCTCAGTCGACAAGTCCACCAGCACCGCCTACTTG 335

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACC----- 355
        |||
Db    335 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATATATTACTGTGCGAGAGCCCGTGGC 395

Qy    356 -----AACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCA 408
        |
Db    396 CTGNGCGGAGGATACTACTTTGACTCCTGNGGCCAGGGAGCCCTGGTCACCGTCTCCTCA 455

Qy    409 GCCTCCACCAAGGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
        ||
Db    456 GCTTCCACCAAGGGGCCCATCCGTCTTCCCCCTGGCGCCCTGCTCCAGGA 504
  
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RESULT 8

CD683913

LOCUS CD683913 672 bp mRNA linear EST 25-JUN-2003

DEFINITION EST433 human nasopharynx Homo sapiens cDNA, mRNA sequence.

ACCESSION CD683913

VERSION CD683913.1 GI:32198411

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 672)

AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and
 Zeng,Y.-X.

TITLE Transcriptional Gene Expression Profile of Human Nasopharynx

JOURNAL Unpublished (2003)

COMMENT Contact: YiXin Zeng

Cancer Center

Sun Yat-sen University
651 DongFeng Road East, GuangZhou 510060, China
Tel: 86-1380-9770-743
Fax: 86-20-8775-4506
Email: yxzeng@gzsums.edu.cn.

FEATURES
source Location/Qualifiers
1. .672
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/tissue_type="normal nasopharynx"
/clone_lib="human nasopharynx"
/note="ESTs generated from a normal nasopharynx cDNA
library from southern Chinese"

ORIGIN

Query Match 82.3%; Score 380.4; DB 6; Length 672;
Best Local Similarity 90.3%; Pred. No. 1.2e-85;
Matches 421; Conservative 0; Mismatches 36; Indels 9; Gaps 1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      86 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 145

Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db     146 GTGCAGCTGGTACAGTCTGGAGCCGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 205

Qy     121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db     206 TGTAAGTCTCTGGATACAACCTTATCACCTATTGGATCGGCTGGGTGCGCCAGATGCCC 265

Qy     181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db     266 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATCCCAGATACAGC 325

Qy     241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db     326 CCATCCTTCCAAGGCCAGGTCACCTTCTCAGTGGACAAGTCCATCAGCACCGCCTACCTG 385

Qy     301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
      |||
Db     386 CACTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTATTGTGCGAGACCCACGGT 445

Qy     361 GGCCTC-----TTTGA TACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCC 411
      |||
Db     446 GGCTTCGAAAATGCTTTTGATATTTGGGGCCAAGGGACAACGGTCATCGTCTCTTCAGCC 505

Qy     412 TCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db     506 TCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 551
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RESULT 9

BQ712042

LOCUS BQ712042 880 bp mRNA linear EST 16-JUL-2002
DEFINITION AGENCOURT_8351686 NIH_MGC_113 Homo sapiens cDNA clone IMAGE:6282281

5', mRNA sequence.

ACCESSION BQ712042

VERSION BQ712042.1 GI:21850941

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 880)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Mark Watson
cDNA Library Preparation: Rubin Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
<http://image.llnl.gov>
Plate: LLCM2476 row: g column: 18
High quality sequence stop: 471.

FEATURES Location/Qualifiers

source 1..880
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6282281"
/lab_host="DH10B (phage-resistant)"
/clone_lib="NIH_MGC_113"
/note="Organ: spleen; Vector: pOTB7; Site_1: XhoI; Site_2:
EcoRI; cDNA made by oligo-dT priming. Directionally cloned
into EcoRI/XhoI sites using the following 5' adaptor:
GGCACGAG(G). Library constructed by Ling Hong in the
laboratory of Gerald M. Rubin (University of California,
Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and
Superscript II RT (Life Technologies). Note: this is a
NIH_MGC Library."

ORIGIN

Query Match 82.3%; Score 380; DB 5; Length 880;
Best Local Similarity 89.3%; Pred. No. 1.6e-85;
Matches 432; Conservative 0; Mismatches 25; Indels 27; Gaps 1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      21 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 80

Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db      81 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 140

Qy     121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
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Db     141 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 200

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Qy 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
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 Db 201 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGT 260
 Qy 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
 |||
 Db 261 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAATACCGCCTTCCTG 320
 Qy 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
 |||
 Db 321 CAGTGGAAACAGCCTGAAGGCCTCGGACACCGCCATGTATTTCTGTGCGAGACTCGAAATT 380
 Qy 361 G-----GCCTCTTTGACTACTGGGGCCAGGGAACCCTG 393
 |
 Db 381 GAAATAGTAGCAGGGGCTCCCATCGACTACGGTATGGACGTCTGGGGCCAAGGGACCGCG 440
 Qy 394 GTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCC 453
 |||
 Db 441 GTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCC 500
 Qy 454 AAGA 457
 |||
 Db 501 AAGA 504

RESULT 10

BI906125

LOCUS BI906125 857 bp mRNA linear EST 16-OCT-2001

DEFINITION 603062533F1 NIH_MGC_118 Homo sapiens cDNA clone IMAGE:5211561 5', mRNA sequence.

ACCESSION BI906125

VERSION BI906125.1 GI:16168777

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 857)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Life Technologies, Inc.

cDNA Library Preparation: Life Technologies, Inc.

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLAM11531 row: b column: 10

High quality sequence stop: 738.

FEATURES

source

Location/Qualifiers

1..857

/organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"

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/clone="IMAGE:5211561"
/tissue_type="leukocyte"
/lab_host="DH10B"
/clone_lib="NIH_MGC_118"
/note="Vector: pCMV-SPORT6; Site_1: NotI; Site_2: EcoRV
(destroyed); RNA source leukocytes from anonymous pool of
non-activated adult donors. Library is oligo-dT primed
and directionally cloned (EcoRV site is destroyed upon
cloning). Average insert size 1.7 kb, insert size range
1.2-3.3 kb. Library is normalized and enriched for
full-length clones and was constructed by C. Gruber
(Invitrogen). Research Genetics tracking code 027. Note:
this is a NIH_MGC Library."

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ORIGIN

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Query Match          82.2%; Score 379.8; DB 4; Length 857;
Best Local Similarity 91.9%; Pred. No. 1.8e-85;
Matches 418; Conservative 0; Mismatches 22; Indels 15; Gaps 1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      34 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 93
      |||

Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db      94 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 153
      |||

Qy     121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db     154 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 213
      |||

Qy     181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db     214 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGC 273
      |||

Qy     241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db     274 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 333
      |||

Qy     301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
      |||
Db     334 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACACGAGCAG 393
      |||

Qy     361 GGCCT-----CTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 405
      |||
Db     394 TGGCTGGTACGAGGAAGTGGGTTCGACCCCTGGGGCCAGGGAACCCTGGTCACCGTCTCC 453
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Qy     406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCT 440
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Db     454 TCAGCACCCACCAAGGCTCCGGATGTGTCCCCAT 488
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RESULT 11

AW403183

LOCUS AW403183 489 bp mRNA linear EST 16-FEB-2000

DEFINITION UI-HF-BK0-aay-c-07-0-UI_r1 NIH_MGC_36 Homo sapiens cDNA clone

IMAGE:3055476 5', mRNA sequence.

ACCESSION AW403183
 VERSION AW403183.1 GI:6922047
 KEYWORDS EST.
 SOURCE Homo sapiens (human)
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 REFERENCE 1 (bases 1 to 489)
 AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.
 TITLE National Institutes of Health, Mammalian Gene Collection (MGC)
 JOURNAL Unpublished (1999)
 COMMENT Contact: Robert Strausberg, Ph.D.
 Email: cgapbs-r@mail.nih.gov
 Eco RI site shown at the beginning of the sequence.
 Tissue Procurement: Louis M. Staudt, M.D., Ph.D.
 cDNA Library Preparation: M.B. Soares Lab
 cDNA Library Arrayed by: M.B. Soares Lab
 DNA Sequencing by: M.B. Soares Lab
 Clone distribution: MGC clone distribution information can be
 found through the I.M.A.G.E. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
 Seq primer: M13 Forward.
 FEATURES Location/Qualifiers
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 /organism="Homo sapiens"
 /mol_type="mRNA"
 /db_xref="taxon:9606"
 /clone="IMAGE:3055476"
 /tissue_type="lymph"
 /cell_type="germinal center B cells"
 /cell_line="MGC85"
 /lab_host="DH10B (LTI)"
 /clone_lib="NIH_MGC_36"
 /note="Vector: pT7T3-Pac; Site_1: NotI; Site_2: Eco RI;
 Constructed from size fractionated cytoplasmic mRNA
 (0.5-1.5kb). Directionally cloned. Cells provided by Louis
 M. Staudt, Ph.D. Library preparation by Maria de Fatima
 Bonaldo, Ph.D. and M. Bento Soares, Ph.D."

ORIGIN

Query Match 82.1%; Score 379.4; DB 2; Length 489;
 Best Local Similarity 89.7%; Pred. No. 2.1e-85;
 Matches 426; Conservative 0; Mismatches 31; Indels 18; Gaps 1;

Qy	1	ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG	60
Db	2	ACGAGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG	61
Qy	61	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC	120
Db	62	GTGCAGCTGGTGCAGTCTGGGACAGAGGTGAAAAAGTCCGGGGAGTCTCTGAAGATCTCC	121
Qy	121	TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC	180
Db	122	TGTCAGGGTTCTGGATACAGCTTTGCCACCTCCTGGATCGGCTGGGTGCGCCAGATGCCC	181
Qy	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGA CTCTGATACCACATACAGC	240

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      |||
Db      182 GGGAAAGGCCTGGAGTGGATGGGCATCATCTATCCTGGTGGACTCTGATACCAGATACAGC 241
Qy      241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db      242 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 301
Qy      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
      |||
Db      302 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACTTCGCGGG 361
Qy      361 -----GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTC 402
      |||
Db      362 GGGCAAGTATGGTGGAGTGGCACTTTTGATATCTGGGGCCAAGGGACAATGGTCATCGTC 421
Qy      403 TCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db      422 TCTTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 476

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RESULT 12

BM713153

LOCUS BM713153 658 bp mRNA linear EST 28-FEB-2002

DEFINITION UI-E-EJ0-ahn-d-09-0-UI.r1 UI-E-EJ0 Homo sapiens cDNA clone

UI-E-EJ0-ahn-d-09-0-UI 5', mRNA sequence.

ACCESSION BM713153

VERSION BM713153.1 GI:19026411

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 658)

AUTHORS Bonaldo,M.F., Lennon,G. and Soares,M.B.

TITLE Normalization and subtraction: two approaches to facilitate gene
discovery

JOURNAL Genome Res. 6 (9), 791-806 (1996)

MEDLINE 97044477

PUBMED 8889548

COMMENT Contact: Soares, MB

Coordinated Laboratory for Computational Genomics

University of Iowa

375 Newton Road , 4156 MEBRF, Iowa City, IA 52242, USA

Tel: 319 335 8250

Fax: 319 335 9565

Email: bento-soares@uiowa.edu

Tissue Procurement: Dr. Gregg Hageman

cDNA Library preparation: Dr. M. Bento Soares, Univeristy of Iowa

cDNA Library Arrayed by: Dr. M. Bento Soares, Univeristy of Iowa

DNA Sequencing by: Dr. M. Bento Soares, Univeristy of Iowa

Clone Distribution: Researchers may obtain clones from Research
Genetics (www.resgen.com).

Seq primer: M13 Reverse.

FEATURES

source Location/Qualifiers

1. .658

/organism="Homo sapiens"

/mol_type="mRNA"

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/db_xref="taxon:9606"
/clone="UI-E-EJ0-ahn-d-09-0-UI"
/tissue_type="fetal eyes, lens, eye anterior segment,
optic nerve, retina, Retina Foveal and Macular, RPE and
Choroid"
/dev_stage="fetal and adult"
/lab_host="DH10B (Life Technologies) (T1 phage resistant)"
/clone_lib="UI-E-EJ0"
/note="Organ: eye; Vector: pT7T3-Pac (Pharmacia) with a
modified polylinker; Site_1: EcoR I; Site_2: Not I;
UI-E-EJ0 is a subtracted cDNA library constructed
according to Bonaldo, Lennon and Soares, Genome Research,
6:791-806, 1996. First strand cDNA synthesis was primed
with an oligo-dT primer containing a Not I site. Double
stranded cDNA was ligated to an EcoR I adaptor, digested
with Not I, and cloned directionally into pT7T3-Pac
vector. The oligonucleotide used to prime the synthesis of
first-strand cDNA contains a library tag sequence that is
located between the Not I site and the (dT)18 tail. The
sequence tags for this library are: fetal eyes,
AGAATCAAGA; lens, CGATTAGCGA; eye anterior segment,
AATGCCGCAT; optic nerve, CCATTAAGTG; retina, CCGCG; Retina
Foveal and Macular, GTCC; RPE and Choroid, ACCTA. This
library was created for the program, Gene Discovery in the
Visual System, supported by National Eye Institute (NEI)."
```

ORIGIN

```

Query Match          81.9%;  Score 378.2;  DB 4;  Length 658;
Best Local Similarity 89.2%;  Pred. No. 4.4e-85;
Matches 429;  Conservative 0;  Mismatches 28;  Indels 24;  Gaps 1;
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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
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Db      7 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 66

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db     67 GTGCAGCTGGTCCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAATCTCTGAAGATCTCC 126

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db    127 TGTAAGGCTTCTGGATACAGGTTTAGCACCTACGGGCTCGCCTGGGTGCGCCAGATGCCC 186

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
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Db    187 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCCGATACCAGATACAGT 246

Qy    241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
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Db    247 CCGTCCTTCCAAGGCCAGGTACCATTTTACGCCGACAAGTCCATCAGTACCGCCTACCTG 306

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
      |||
Db    307 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCCTGTATTTCTGTGCGAGACATCGTATT 366

Qy    361 GG-----CCTCTTTGACTACTGGGGCCAGGGAACCCTGGTC 396
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Db 367 GGATATTGTAGTCGTTCTACCTGCTCCTCGACTGACTACTGGGGCCAGGGAACCCTGGTC 426

Qy 397 ACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAG 456

||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

Db 427 ACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAG 486

Qy 457 A 457

|

Db 487 A 487

RESULT 13

BG754454

LOCUS BG754454 873 bp mRNA linear EST 15-MAY-2001

DEFINITION 602710060F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4846527 5', mRNA sequence.

ACCESSION BG754454

VERSION BG754454.1 GI:14065094

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 873)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Louis M. Staudt, M.D., Ph.D.

cDNA Library Preparation: Ling Hong/Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM1687 row: h column: 16

High quality sequence stop: 821.

FEATURES

source

Location/Qualifiers

1..873

/organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"

/clone="IMAGE:4846527"

/tissue_type="primary B-cells from tonsils (cell line)"

/lab_host="DH10B (phage-resistant)"

/clone_lib="NIH_MGC_48"

/note="Organ: B-cells; Vector: pOTB7; Site_1: XhoI;

Site_2: EcoRI; cDNA made by oligo-dT priming.

Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies).

Note: this is a NIH_MGC Library."

ORIGIN

Query Match 81.9%; Score 378.2; DB 4; Length 873;
 Best Local Similarity 90.6%; Pred. No. 4.6e-85;
 Matches 434; Conservative 0; Mismatches 23; Indels 22; Gaps 2;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
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Db      37 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 96

Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
        |||
Db      97 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 156

Qy     121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCC 180
        |||
Db     157 TGTAAGGGTTCTGGATACAGCTTTACCAACTACTGGATCGGCTGGGTGCGCCAGATGCC 216

Qy     181 GGGAAAAGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
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Db     217 GGGAAAAGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTAATACCAGATACAGC 276

Qy     241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
        |||
Db     277 CCGTCCTTCCAAGGCCAGGTCATTATTTAGCCGACAAGTCCATCAGTACCGCCTACCTG 336

Qy     301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA----- 351
        |||
Db     337 CTATGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACATGGTGGT 396

Qy     352 -----GACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACC 399
        |||
Db     397 TACTATGATTTCGGGACCCCCGACTACATTGACTCCTGGGGCCAGGGAACCCTAGTCACC 456

Qy     400 GTCTCCTCAGCCTCCACCAAGGGGCCCATCGGT-CTTCCCCCTGGCACCTCCTCCAAGA 457
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Db     457 GTCTCCTCAGCCTCCACCAAGGGGCCCATCGGTGCTTCCCCCTGGCACCTCCTCCAAGA 515
  
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RESULT 14

CR545747

LOCUS CR545747 573 bp mRNA linear EST 07-JUL-2004

DEFINITION DKFZp470L0323_r1 470 (synonym: pliv1) Pongo pygmaeus cDNA clone
 DKFZp470L0323 5', mRNA sequence.

ACCESSION CR545747

VERSION CR545747.1 GI:49897682

KEYWORDS EST.

SOURCE Pongo pygmaeus (orangutan)

ORGANISM Pongo pygmaeus

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pongo.

REFERENCE 1 (bases 1 to 573)

AUTHORS Wambutt,R., Heubner,D., Mewes,H.W., Weil,B., Amid,C., Osanger,A.,
 Fobo,G., Han,M. and Wiemann,S.

TITLE Pongo pygmaeus mRNA (Wambutt,R., Heubner,D., Mewes,H.W., et al.)

JOURNAL Unpublished (2004)

COMMENT Contact: MIPS

MIPS

Ingolstaedter Landstr.1, D-85764 Neuherberg, Germany
 This is the 5' sequence of the clone insert Clone from S. Wiemann,
 Molecular Genome Analysis, German Cancer Research Center (DKFZ);
 Email s.wiemann@dkfz-heidelberg.de; sequenced by Agowa
 (Berlin/Germany) within the cDNA sequencing consortium of the
 German Genome Project. This clone (DKFZp470L0323) is available at
 the RZPD in Berlin. Please contact the RZPD: Ressourcenzentrum,
 Heubnerweg 6, 14059 Berlin-Charlottenburg, GERMANY; Email:
 clone@rzpd.de Further information about the clone and the
 sequencing project is available at
<http://mips.gsf.de/projects/cdna/>.

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FEATURES             Location/Qualifiers
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                     /mol_type="mRNA"
                     /db_xref="taxon:9600"
                     /clone="DKFZp470L0323"
                     /tissue_type="liver"
                     /dev_stage="adult"
                     /lab_host="DH10B"
                     /clone_lib="470 (synonym: pliv1)"
                     /note="Vector: pSport1_Sfi; Site_1: SfiA; Site_2: SfiB"
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ORIGIN

Query Match 81.3%; Score 375.4; DB 7; Length 573;
 Best Local Similarity 89.8%; Pred. No. 2.2e-84;
 Matches 416; Conservative 0; Mismatches 41; Indels 6; Gaps 1;

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Db      58 ATGGGGTCAACCGCCATCCTCGTCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 117

Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db     118 GTGCAGCTGGTGCAGTCTGGAACAGAGGTGAAAAAGCCCGGGGAGTCTCTGAGGATCTCC 177

Qy     121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db     178 TGTAAGACTTCTCGATACAGCTTTACCAACAAGTGGATCACCTGGGTGCGCCAGATGCCC 237

Qy     181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
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Db     238 GGGAAAGGCCTGGAGTGGATGGGCAGCATCTTTCCTGGTGACTCTGATACCAGATACAGT 297

Qy     241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db     298 CCAACCTTCCAAGGCCACGTACCATCTCGGCCGACAAGTCCATCACCACCACCTACCTT 357

Qy     301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
      |||
Db     358 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCACAAGTCAGGTTT 417

Qy     361 GGCCT-----CTTTGACTACTGGGGCCAGGGAACCCTGGTACCGTCTCCTCAGCCTCC 414
      |||
Db     418 GGCTTTCGCTACCTTCACTACTGGGGCCAGGGAACCCTGCTACCGTCTCCTCAGCCTCC 477

Qy     415 ACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
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Db

|||||
478 ACCAAGGGCCCATCGGTCTTCCCCCTGGCGTCCTGCTCCAGGA 520

RESULT 15

BM007733

LOCUS BM007733 835 bp mRNA linear EST 30-OCT-2001

DEFINITION 603617180F1 NIH_MGC_113 Homo sapiens cDNA clone IMAGE:5441155 5',
mRNA sequence.

ACCESSION BM007733

VERSION BM007733.1 GI:16522087

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 835)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Dr. Mark Watson

cDNA Library Preparation: Ling Hong/Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM1914 row: p column: 20

High quality sequence stop: 832.

FEATURES

source

Location/Qualifiers

1..835

/organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"

/clone="IMAGE:5441155"

/lab_host="DH10B (phage-resistant)"

/clone_lib="NIH_MGC_113"

/note="Organ: spleen; Vector: pOTB7; Site_1: XhoI; Site_2:
EcoRI; cDNA made by oligo-dT priming. Directionally cloned
into EcoRI/XhoI sites using the following 5' adaptor:
GGCACGAG(G). Library constructed by Ling Hong in the
laboratory of Gerald M. Rubin (University of California,
Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and
Superscript II RT (Life Technologies). Note: this is a
NIH_MGC Library."

ORIGIN

Query Match 80.7%; Score 372.8; DB 4; Length 835;

Best Local Similarity 91.7%; Pred. No. 1.1e-83;

Matches 433; Conservative 0; Mismatches 22; Indels 17; Gaps 3;

Qy

1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

|||||

Db

31 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 90

Qy 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
 |||
 Db 91 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 150

Qy 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
 |||
 Db 151 TGTAAGGGTTCTGGATACAGTTTACCAGTCACTGGATCGGCTGGGTGCGCCAGATGCCC 210

Qy 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
 |||
 Db 211 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACGACATACAGC 270

Qy 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
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 Db 271 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGTCGACAAGTCCATCAATACCGCCTACCTG 330

Qy 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA----- 353
 |||
 Db 331 GAGTGGCGCAGTCTGAAGGCCTCGGACACCGCCATGTATTATTGTGCGAGACATCTCAGA 390

Qy 354 -----CCAAGTGGGCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCTCC 405
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 Db 391 CCTGCTACTCAACTCCAACCTTTTGACCACTGGGGCCA-GGAACCCCTGGTCACCGTCTCC 449

Qy 406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCTCCTCCAAGA 457
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Search completed: December 2, 2004, 20:56:32
 Job time : 2408.82 secs

OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 12:19:02 ; Search time 2348.55 Seconds
 (without alignments)
 8839.572 Million cell updates/sec

Title: US-08-728-463B-208
 Perfect score: 439
 Sequence: 1 ATGGACATGGAGTTCCCCGT.....CCCGCCATCTGATGAAGCTT 439

Scoring table: IDENTITY_NUC
 Gapop 10.0 , Gapext 1.0

Searched: 4526729 seqs, 23644849745 residues

Total number of hits satisfying chosen parameters: 9053458

Minimum DB seq length: 0
 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
 Maximum Match 100%
 Listing first 45 summaries

Database : GenEmbl:*
 1: gb_ba:*
 2: gb_htg:*
 3: gb_in:*
 4: gb_om:*
 5: gb_ov:*
 6: gb_pat:*
 7: gb_ph:*
 8: gb_pl:*
 9: gb_pr:*
 10: gb_ro:*
 11: gb_sts:*
 12: gb_sy:*
 13: gb_un:*
 14: gb_vi:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query		DB	ID	Description
		Match	Length			
1	439	100.0	439	6	AR161377	AR161377 Sequence
2	439	100.0	439	6	AR369970	AR369970 Sequence
3	439	100.0	439	6	BD096604	BD096604 Transgeni

4	394	89.7	979	9	BC073763	BC073763 Homo sapi
5	392.4	89.4	711	6	CQ795434	CQ795434 Sequence
6	392.4	89.4	953	9	BC005332	BC005332 Homo sapi
7	386	87.9	936	9	BC073764	BC073764 Homo sapi
8	384.4	87.6	824	9	AY510107	AY510107 Homo sapi
9	381.8	87.0	433	9	S59162	S59162 Ig V kappa
10	381.2	86.8	817	6	BD248702	BD248702 Immunoglo
11	381.2	86.8	974	6	AX305000	AX305000 Sequence
12	381.2	86.8	974	6	AX306529	AX306529 Sequence
13	381.2	86.8	974	6	BD131246	BD131246 Human mon
14	379.6	86.5	928	9	AK129817	AK129817 Homo sapi
15	377.8	86.1	3819	6	AR161402	AR161402 Sequence
16	377.8	86.1	3819	6	AR369997	AR369997 Sequence
17	377.8	86.1	3819	6	BD096631	BD096631 Transgeni
18	376.4	85.7	438	6	BD015544	BD015544 Human mon
19	376.4	85.7	438	6	BD094922	BD094922 Human mon
20	376.4	85.7	728	6	BD182353	BD182353 Anti CD40
21	376.4	85.7	728	6	AX327729	AX327729 Sequence
22	374.8	85.4	827	9	AY510106	AY510106 Homo sapi
23	373.2	85.0	716	6	AX327727	AX327727 Sequence
24	373.2	85.0	962	9	BC034141	BC034141 Homo sapi
25	370	84.3	960	9	BC056256	BC056256 Homo sapi
26	368.4	83.9	714	6	BD185290	BD185290 Uses of a
27	368.4	83.9	714	6	BD273726	BD273726 Human mon
28	368.4	83.9	714	6	AR454403	AR454403 Sequence
29	368.4	83.9	714	6	AX616570	AX616570 Sequence
30	368.4	83.9	948	9	BC073791	BC073791 Homo sapi
31	366.8	83.6	956	9	BC029444	BC029444 Homo sapi
32	365.2	83.2	698	6	BD182351	BD182351 Anti CD40
33	365.2	83.2	698	6	AX327725	AX327725 Sequence
34	365.2	83.2	729	6	E40896	E40896 Humanized a
35	365.2	83.2	729	6	BD090625	BD090625 Drug cont
36	363.4	82.8	429	9	HUMIGKW	M74019 Homo sapien
37	362.2	82.5	441	9	HSU43767	U43767 Human immun
38	361.8	82.4	986	9	BC067092	BC067092 Homo sapi
39	358.8	81.7	938	9	HSA010442	AJ010442 Homo sapi
40	358	81.5	439	9	HSU43764	U43764 Human immun
41	357.8	81.5	420	6	AR161429	AR161429 Sequence
42	357.8	81.5	420	6	AR369974	AR369974 Sequence
43	357.8	81.5	420	6	BD096608	BD096608 Transgeni
44	355.4	81.0	737	6	AX384872	AX384872 Sequence
45	353	80.4	928	6	AX251598	AX251598 Sequence

ALIGNMENTS

RESULT 1

AR161377

LOCUS AR161377 439 bp DNA linear PAT 17-OCT-2001

DEFINITION Sequence 360 from patent US 6255458.

ACCESSION AR161377

VERSION AR161377.1 GI:16227237

KEYWORDS

SOURCE Unknown.

ORGANISM Unknown.

Unclassified.

REFERENCE 1 (bases 1 to 439)
AUTHORS Lonberg, N. and Kay, R.M.
TITLE High affinity human antibodies and human antibodies against digoxin
JOURNAL Patent: US 6255458-A 360 03-JUL-2001;
FEATURES Location/Qualifiers
source 1. .439
/organism="unknown"
/mol_type="unassigned DNA"

ORIGIN

Query Match 100.0%; Score 439; DB 6; Length 439;
Best Local Similarity 100.0%; Pred. No. 4.9e-129;
Matches 439; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 ATGGACATGGAGTTCCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC 60
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Db      1 ATGGACATGGAGTTCCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC 60

Qy     61 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA 120
      |||
Db     61 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA 120

Qy    121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180
      |||
Db    121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180

Qy    181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240
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Db    181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240

Qy    241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
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Db    241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300

Qy    301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360
      |||
Db    301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360

Qy    361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420
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Db    361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420

Qy    421 CCGCCATCTGATGAAGCTT 439
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Db    421 CCGCCATCTGATGAAGCTT 439

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RESULT 2

AR369970

LOCUS AR369970 439 bp DNA linear PAT 12-SEP-2003
DEFINITION Sequence 208 from patent US 6300129.
ACCESSION AR369970
VERSION AR369970.1 GI:34606410
KEYWORDS .
SOURCE Unknown.
ORGANISM Unknown.
Unclassified.

REFERENCE 1 (bases 1 to 439)
 AUTHORS Lonberg,N. and Kay,R.M.
 TITLE Transgenic non-human animals for producing heterologous antibodies
 JOURNAL Patent: US 6300129-A 208 09-OCT-2001;
 FEATURES Location/Qualifiers
 source 1..439
 /organism="unknown"
 /mol_type="genomic DNA"

ORIGIN

Query Match 100.0%; Score 439; DB 6; Length 439;
 Best Local Similarity 100.0%; Pred. No. 4.9e-129;
 Matches 439; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 ATGGACATGGAGTTCCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC 60
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Db      1 ATGGACATGGAGTTCCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC 60

Qy      61 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA 120
        |||
Db      61 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA 120

Qy      121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180
        |||
Db      121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180

Qy      181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240
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Db      181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240

Qy      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
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Qy      301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360
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Db      301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360

Qy      361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420
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Db      361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420

Qy      421 CCGCCATCTGATGAAGCTT 439
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Db      421 CCGCCATCTGATGAAGCTT 439
  
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RESULT 3

BD096604

LOCUS BD096604 439 bp DNA linear PAT 27-AUG-2002

DEFINITION Transgenic non-human animals capable of producing heterologous antibodies.

ACCESSION BD096604

VERSION BD096604.1 GI:22642192

KEYWORDS JP 2001527386-A/131.

SOURCE unidentified

ORGANISM unidentified

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REFERENCE      1 (bases 1 to 439)
AUTHORS       Lonberg,N. and Kay,R.M.
TITLE         Transgenic non-human animals capable of producing heterologous
              antibodies
JOURNAL       Patent: JP 2001527386-A 131 25-DEC-2001;
              GENPHARM INTERNATIONAL
COMMENT       OS      Unidentified
              PN      JP 2001527386-A/131
              PD      25-DEC-2001
              PF      01-DEC-1997 JP 1998525687
              PR      02-DEC-1996 US      08/758417
              PI      NILS LONBERG,ROBERT M KAY
              PC      C12N5/00,C12N5/28,C12N5/24,C12N5/10,C07K16/00,A61K39/00 CC
              Strandedness: Single;
              CC      Topology: Linear;
              CC      Transgenic non-human animals capable of
              producing heterologous
              CC      antibodies
              FH      Key      Location/Qualifiers
              FT      source      1. .439
              FT      /organism='Unidentified'.

FEATURES             Location/Qualifiers
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                     /organism="unidentified"
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                     /db_xref="taxon:32644"

ORIGIN

Query Match      100.0%;  Score 439;  DB 6;  Length 439;
Best Local Similarity 100.0%;  Pred. No. 4.9e-129;
Matches 439;  Conservative 0;  Mismatches 0;  Indels 0;  Gaps 0;

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Db      1  ATGGACATGGAGTTCCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTGTTCCCAAGGTGCC 60

Qy      61  AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA 120
      |||
Db      61  AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA 120

Qy      121  GTCACCATCACTTGTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180
      |||
Db      121  GTCACCATCACTTGTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180

Qy      181  AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240
      |||
Db      181  AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240

Qy      241  CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
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Db      241  CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300

Qy      301  CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360
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Db      301  CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360

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Qy 361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420
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 Db 361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420
 Qy 421 CCGCCATCTGATGAAGCTT 439
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 Db 421 CCGCCATCTGATGAAGCTT 439

RESULT 4

BC073763

LOCUS BC073763 979 bp mRNA linear PRI 30-JUN-2004

DEFINITION Homo sapiens cDNA clone MGC:88770 IMAGE:4575800, complete cds.

ACCESSION BC073763

VERSION BC073763.1 GI:49258097

KEYWORDS MGC.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 979)

AUTHORS Strausberg,R.L., Feingold,E.A., Grouse,L.H., Derge,J.G.,
 Klausner,R.D., Collins,F.S., Wagner,L., Shenmen,C.M., Schuler,G.D.,
 Altschul,S.F., Zeeberg,B., Buetow,K.H., Schaefer,C.F., Bhat,N.K.,
 Hopkins,R.F., Jordan,H., Moore,T., Max,S.I., Wang,J., Hsieh,F.,
 Diatchenko,L., Marusina,K., Farmer,A.A., Rubin,G.M., Hong,L.,
 Stapleton,M., Soares,M.B., Bonaldo,M.F., Casavant,T.L.,
 Scheetz,T.E., Brownstein,M.J., Usdin,T.B., Toshiyuki,S.,
 Carninci,P., Prange,C., Raha,S.S., Loquellano,N.A., Peters,G.J.,
 Abramson,R.D., Mullahy,S.J., Bosak,S.A., McEwan,P.J.,
 McKernan,K.J., Malek,J.A., Gunaratne,P.H., Richards,S.,
 Worley,K.C., Hale,S., Garcia,A.M., Gay,L.J., Hulyk,S.W.,
 Villalon,D.K., Muzny,D.M., Sodergren,E.J., Lu,X., Gibbs,R.A.,
 Fahey,J., Helton,E., Kettelman,M., Madan,A., Rodrigues,S.,
 Sanchez,A., Whiting,M., Madan,A., Young,A.C., Shevchenko,Y.,
 Bouffard,G.G., Blakesley,R.W., Touchman,J.W., Green,E.D.,
 Dickson,M.C., Rodriguez,A.C., Grimwood,J., Schmutz,J., Myers,R.M.,
 Butterfield,Y.S., Krzywinski,M.I., Skalska,U., Smailus,D.E.,
 Schnerch,A., Schein,J.E., Jones,S.J. and Marra,M.A.

TITLE Generation and initial analysis of more than 15,000 full-length
 human and mouse cDNA sequences

JOURNAL Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)

PUBMED 12477932

REFERENCE 2 (bases 1 to 979)

AUTHORS Strausberg,R.

TITLE Direct Submission

JOURNAL Submitted (23-JUN-2004) National Institutes of Health, Mammalian
 Gene Collection (MGC), Cancer Genomics Office, National Cancer
 Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
 USA

REMARK NIH-MGC Project URL: <http://mgc.nci.nih.gov>

COMMENT Contact: MGC help desk

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Louis Staudt

cDNA Library Preparation: Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Sequencing Group at the Stanford Human Genome

Center, Stanford University School of Medicine, Stanford, CA 94305
Web site: <http://www-shgc.stanford.edu>
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: <http://image.llnl.gov>
Series: IRAL Plate: 58 Row: c Column: 9
This clone was selected for full length sequencing because it passed the following selection criteria: GenomeScan gene prediction, Similarity but not identity to protein.

FEATURES
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 Location/Qualifiers
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EDFATYYCQQYNTYPLTFGGGKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNN
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ORIGIN

Query Match 89.7%; Score 394; DB 9; Length 979;
Best Local Similarity 94.2%; Pred. No. 1.2e-114;
Matches 409; Conservative 0; Mismatches 25; Indels 0; Gaps 0;

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Db     135 GTCACCATCACTTGTCTGGGCGAGTCAGAATGTTAGCAGGTGGTTAGCCTGGTATCAGCAG 194

Qy     181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240
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Db     195 AGACCAGAGAAAGCCCCCTAAGTCCCTGATCTATGCTACATCCAGTTTGACAGTGGGGTC 254

Qy     241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
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Db     255 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 314
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Qy 301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360
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 Qy 361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420
 |||
 Db 375 GGCGGAGGGACCAAGGTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 434
 Qy 421 CCGCCATCTGATGA 434
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 Db 435 CCGCCATCTGATGA 448

RESULT 5

CQ795434

LOCUS CQ795434 711 bp DNA linear PAT 19-APR-2004

DEFINITION Sequence 22 from Patent WO2004024927.

ACCESSION CQ795434

VERSION CQ795434.1 GI:46407524

KEYWORDS

SOURCE synthetic construct

ORGANISM synthetic construct
 artificial sequences.

REFERENCE 1

AUTHORS Gorr,G., Launhardt,H. and Berg,B.

TITLE Protein production method

JOURNAL Patent: WO 2004024927-A 22 25-MAR-2004;

Greenovation Biotech GmbH (DE)

FEATURES

source

Location/Qualifiers

1. .711

/organism="synthetic construct"

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/db_xref="taxon:32630"

/note="Description of Artificial Sequence: GENBANK

accession number BC005332 (bp 21-731), indicated on page

34, line 30, to page 35, line 9"

ORIGIN

Query Match 89.4%; Score 392.4; DB 6; Length 711;

Best Local Similarity 94.0%; Pred. No. 4e-114;

Matches 408; Conservative 0; Mismatches 26; Indels 0; Gaps 0;

Qy 1 ATGGACATGGAGTTCCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC 60
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 Qy 61 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA 120
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 Db 61 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTGCGGAGACACA 120
 Qy 121 GTCACCATCACTTGTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180
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 Db 121 GTCACCATCACTTGTCGGGCGAGTCAGGACATTAGCAATTATTTAGCCTGGTTTCAGCAG 180
 Qy 181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240
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[illegible]

RESULT 6

BC005332

LOCUS	BC005332	953 bp	mRNA	linear	PRI 03-OCT-2003
-------	----------	--------	------	--------	-----------------

DEFINITION Homo sapiens cDNA clone MGC:12418 IMAGE:3934658, complete cds.

ACCESSION BC005332

VERSION BC005332.1 GI:13529115

KEYWORDS MGC.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 953)

AUTHORS Strausberg,R.L., Feingold,E.A., Grouse,L.H., Derge,J.G., Klausner,R.D., Collins,F.S., Wagner,L., Shenmen,C.M., Schuler,G.D., Altschul,S.F., Zeeberg,B., Buetow,K.H., Schaefer,C.F., Bhat,N.K., Hopkins,R.F., Jordan,H., Moore,T., Max,S.I., Wang,J., Hsieh,F., Diatchenko,L., Marusina,K., Farmer,A.A., Rubin,G.M., Hong,L., Stapleton,M., Soares,M.B., Bonaldo,M.F., Casavant,T.L., Scheetz,T.E., Brownstein,M.J., Usdin,T.B., Toshiyuki,S., Carninci,P., Prange,C., Raha,S.S., Loquellano,N.A., Peters,G.J., Abramson,R.D., Mullahy,S.J., Bosak,S.A., McEwan,P.J., McKernan,K.J., Malek,J.A., Gunaratne,P.H., Richards,S., Worley,K.C., Hale,S., Garcia,A.M., Gay,L.J., Hulyk,S.W., Villalon,D.K., Muzny,D.M., Sodergren,E.J., Lu,X., Gibbs,R.A., Fahey,J., Helton,E., Kettelman,M., Madan,A., Rodrigues,S., Sanchez,A., Whiting,M., Madan,A., Young,A.C., Shevchenko,Y., Bouffard,G.G., Blakesley,R.W., Touchman,J.W., Green,E.D., Dickson,M.C., Rodriguez,A.C., Grimwood,J., Schmutz,J., Myers,R.M., Butterfield,Y.S., Krzywinski,M.I., Skalska,U., Smailus,D.E., Schnierch,A., Schein,J.E., Jones,S.J. and Marra,M.A.

TITLE Generation and initial analysis of more than 15,000 full-length
 human and mouse cDNA sequences

JOURNAL Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)

MEDLINE 22388257

PUBMED 12477932

REFERENCE 2 (bases 1 to 953)

AUTHORS Strausberg, R.

TITLE Direct Submission


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Db      81 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTCTGGAGACACA 140
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Qy      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
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Qy      421 CCGCCATCTGATGA 434
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Db      441 CCGCCATCTGATGA 454

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RESULT 7

BC073764

LOCUS BC073764 936 bp mRNA linear PRI 30-JUN-2004

DEFINITION Homo sapiens cDNA clone MGC:88771 IMAGE:4576136, complete cds.

ACCESSION BC073764

VERSION BC073764.1 GI:49256424

KEYWORDS MGC.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 936)

AUTHORS Strausberg,R.L., Feingold,E.A., Grouse,L.H., Derge,J.G.,
Klausner,R.D., Collins,F.S., Wagner,L., Shenmen,C.M., Schuler,G.D.,
Altschul,S.F., Zeeberg,B., Buetow,K.H., Schaefer,C.F., Bhat,N.K.,
Hopkins,R.F., Jordan,H., Moore,T., Max,S.I., Wang,J., Hsieh,F.,
Diatchenko,L., Marusina,K., Farmer,A.A., Rubin,G.M., Hong,L.,
Stapleton,M., Soares,M.B., Bonaldo,M.F., Casavant,T.L.,
Scheetz,T.E., Brownstein,M.J., Usdin,T.B., Toshiyuki,S.,
Carninci,P., Prange,C., Raha,S.S., Loquellano,N.A., Peters,G.J.,
Abramson,R.D., Mullahy,S.J., Bosak,S.A., McEwan,P.J.,
McKernan,K.J., Malek,J.A., Gunaratne,P.H., Richards,S.,
Worley,K.C., Hale,S., Garcia,A.M., Gay,L.J., Hulyk,S.W.,
Villalon,D.K., Muzny,D.M., Sodergren,E.J., Lu,X., Gibbs,R.A.,
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Dickson,M.C., Rodriguez,A.C., Grimwood,J., Schmutz,J., Myers,R.M.,
Butterfield,Y.S., Krzywinski,M.I., Skalska,U., Smailus,D.E.,

TITLE Schnersch, A., Schein, J.E., Jones, S.J. and Marra, M.A.
 Generation and initial analysis of more than 15,000 full-length
 human and mouse cDNA sequences
 JOURNAL Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
 PUBMED 12477932
 REFERENCE 2 (bases 1 to 936)
 AUTHORS Strausberg, R.
 TITLE Direct Submission
 JOURNAL Submitted (23-JUN-2004) National Institutes of Health, Mammalian
 Gene Collection (MGC), Cancer Genomics Office, National Cancer
 Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
 USA
 REMARK NIH-MGC Project URL: <http://mgc.nci.nih.gov>
 COMMENT Contact: MGC help desk
 Email: cgapbs-r@mail.nih.gov
 Tissue Procurement: Louis Staudt
 cDNA Library Preparation: Rubin Laboratory
 cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
 DNA Sequencing by: Sequencing Group at the Stanford Human Genome
 Center, Stanford University School of Medicine, Stanford, CA 94305
 Web site: <http://www-shgc.stanford.edu>
 Contact: (Dickson, Mark) mcd@paxil.stanford.edu
 Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers,
 R. M.

Clone distribution: MGC clone distribution information can be found
 through the I.M.A.G.E. Consortium/LLNL at: <http://image.llnl.gov>
 Series: IRAL Plate: 58 Row: c Column: 10
 This clone was selected for full length sequencing because it
 passed the following selection criteria: GenomeScan gene
 prediction, Similarity but not identity to protein.

FEATURES Location/Qualifiers
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 /organism="Homo sapiens"
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ORIGIN

Query Match 87.9%; Score 386; DB 9; Length 936;
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 Matches 404; Conservative 0; Mismatches 30; Indels 0; Gaps 0;


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ORIGIN

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Matches 403;  Conservative  0;  Mismatches  31;  Indels  0;  Gaps  0;

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RESULT 9

S59162

LOCUS

S59162

433 bp

mRNA

linear

PRI 26-JUN-2000

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Db	421	CCGCCATCTGATG	433

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 PC A61P37/08,
 PC
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 FT /organism='Homo sapiens (human)'.
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FEATURES
 source Location/Qualifiers
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 Best Local Similarity 92.4%; Pred. No. 1.5e-110;
 Matches 401; Conservative 0; Mismatches 33; Indels 0; Gaps 0;

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Qy	241	CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG	300
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Qy	421	CCGCCATCTGATGA	434
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AX305000
 LOCUS AX305000 974 bp DNA linear PAT 11-DEC-2001
 DEFINITION Sequence 29 from Patent EP1158004.
 ACCESSION AX305000
 VERSION AX305000.1 GI:17644678
 KEYWORDS
 SOURCE Homo sapiens (human)

ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1
 AUTHORS Takashi,T., Katsunari,T.P. and Nobuaki,H.
 TITLE Human monoclonal antibody against a costimulatory signal
 transduction molecule ailim and pharmaceutical use thereof
 JOURNAL Patent: EP 1158004-A 29 28-NOV-2001;
 Japan Tobacco Inc. (JP)

FEATURES Location/Qualifiers
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Query Match 86.8%; Score 381.2; DB 6; Length 974;
 Best Local Similarity 92.4%; Pred. No. 1.5e-110;
 Matches 401; Conservative 0; Mismatches 33; Indels 0; Gaps 0;

Qy	1	ATGGACATGGAGTTCCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC	60
Db	39	ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTC	98
Qy	61	AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA	120
Db	99	AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA	158
Qy	121	GTCACCATCACTTGTGCGGGCAGTCTAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG	180
Db	159	GTCACCATCACTTGTGCGGGCAGTCTAGGGTATTAGCAGTTGTTAGCCTGGTATCAGCAG	218
Qy	181	AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC	240
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RESULT 12

AX306529

LOCUS AX306529 974 bp DNA linear PAT 11-DEC-2001

DEFINITION Sequence 29 from Patent WO0187981.

ACCESSION AX306529

VERSION AX306529.1 GI:17645749

KEYWORDS

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1

AUTHORS Tsuji,T., Tezuka,K. and Hori,N.

TITLE Human monoclonal antibody against a costimulatory signal
transduction molecule ailim and pharmaceutical use thereof

JOURNAL Patent: WO 0187981-A 29 22-NOV-2001;
Japan Tobacco Inc. (JP)

FEATURES

Location/Qualifiers

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Best Local Similarity 92.4%; Pred. No. 1.5e-110;
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Qy	181	AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC	240
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Qy	241	CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG	300
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Qy	421	CCGCCATCTGATGA	434
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molecule AILIM
CC and medicinal utilization thereof
FH Key Location/Qualifiers
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FT CDS (39)..(749)
FT 3'UTR (750)..(974)
FT sig_peptide (39)..(104).

FEATURES Location/Qualifiers
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ORIGIN

Query Match 86.8%; Score 381.2; DB 6; Length 974;
Best Local Similarity 92.4%; Pred. No. 1.5e-110;
Matches 401; Conservative 0; Mismatches 33; Indels 0; Gaps 0;

Qy	1	ATGGACATGGAGTTCCCGTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC	60
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Qy	61	AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA	120
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Qy	121	GTCACCATCACTTGTTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG	180
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Qy	181	AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC	240
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Qy	241	CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG	300
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Qy	301	CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT	360
Db	339	CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCGTGGACGTTT	398
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Qy	421	CCGCCATCTGATGA	434
Db	459	CCGCCATCTGATGA	472

RESULT 14

AK129817

LOCUS AK129817 928 bp mRNA linear PRI 10-SEP-2003

DEFINITION Homo sapiens cDNA FLJ26306 fis, clone DMC08285.

ACCESSION AK129817

VERSION AK129817.1 GI:34526437

KEYWORDS oligo capping; fis (full insert sequence).

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE

1

AUTHORS

Ota,T., Nakagawa,S., Senoh,A., Mizuguchi,H., Inagaki,H., Suzuki,Y.,
Hata,H., Nakagawa,K., Mizuno,S., Morinaga,M., Kawamura,M.,
Sugiyama,T., Irie,R., Otsuki,T., Sato,H., Nishikawa,T.,
Sugiyama,A., Kawakami,B., Nagai,K., Isogai,T. and Sugano,S.

TITLE

NEDO human cDNA sequencing project

JOURNAL

Unpublished

REFERENCE

2 (bases 1 to 928)

AUTHORS

Sugano,S. and Suzuki,Y.

TITLE

Direct Submission

JOURNAL

Submitted (31-JUL-2003) Sumio Sugano, Institute of Medical Science,
University of Tokyo, Laboratory of Genome Structure, Human Genome
Center; Shirokane-dai, 4-6-1, Minato-ku, Tokyo 108-8639, Japan
(E-mail:flcdna@ims.u-tokyo.ac.jp, Tel:81-3-5449-5286,
Fax:81-3-5449-5416)

COMMENT

NEDO human cDNA sequencing project supported by Ministry of
Economy, Trade and Industry of Japan; cDNA full insert sequencing:
Research Association for Biotechnology (RAB); cDNA library
construction and 5'-end one pass sequencing: Institute of Medical
Science, University of Tokyo, Laboratory of Genome Structure, Human
Genome Center; 3'-end one pass sequencing: RAB; clone selection for
full insert sequencing: RAB and Helix Research Institute.

FEATURES

Location/Qualifiers

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Query Match 86.5%; Score 379.6; DB 9; Length 928;

Best Local Similarity 92.2%; Pred. No. 5e-110;

Matches 400; Conservative 0; Mismatches 34; Indels 0; Gaps 0;

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 Db 2865 ATCTGATGA 2873

Search completed: December 2, 2004, 17:01:16
 Job time : 2349.55 secs

GenCore version 5.1.6
 Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 12:19:02 ; Search time 339.909 Seconds
 (without alignments)
 6779.752 Million cell updates/sec

Title: US-08-728-463B-208
 Perfect score: 439
 Sequence: 1 ATGGACATGGAGTTCCCCGT.....CCCGCCATCTGATGAAGCTT 439

Scoring table: IDENTITY_NUC
 Gapop 10.0 , Gapext 1.0

Searched: 4134886 seqs, 2624710521 residues

Total number of hits satisfying chosen parameters: 8269772

Minimum DB seq length: 0
 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
 Maximum Match 100%
 Listing first 45 summaries

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 5: geneseqn2001bs:*
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 9: geneseqn2003bs:*
 10: geneseqn2003cs:*
 11: geneseqn2003ds:*
 12: geneseqn2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
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3	409	93.2	409	2	AAV39241	Aav39241 Functiona
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6	389	88.6	6082	8	AAD56212	Aad56212 Human AB-
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ALIGNMENTS

RESULT 1

AAT73443

ID AAT73443 standard; DNA; 439 BP.

XX

AC AAT73443;

XX

DT 03-DEC-1997 (first entry)

XX

DE Human immunoglobulin light chain variable region partial transcript.

XX

KW Ig; affinity constant; human; antigen; hybridoma; B cell; transgene;

KW transgenic; mouse; CD4; antibody; autoimmune; inflammatory;

KW transplant rejection; ss.

XX

OS Homo sapiens.

XX

PN W09713852-A1.

XX

PD 17-APR-1997.

XX

PF 10-OCT-1996; 96WO-US016433.

XX

PR 10-OCT-1995; 95US-00544404.

XX

PA (GENP-) GENPHARM INT INC.

XX

PI Lonberg N, Kay RM;

XX

DR WPI; 1997-235888/21.

XX

PT Novel anti-CD4 antibody produced by transgenic mice - used in the

PT treatment of auto-immune disease etc.

XX

PS Claim 44; Page 256; 396pp; English.

XX

CC A novel composition has been developed which comprises an immunoglobulin
 CC (Ig) having an affinity constant (Ka) of at least 2 multiply 1000000000 M
 CC -1 for binding to a predetermined human antigen. The present sequence
 CC represents a human light chain variable region partial nucleotide
 CC sequence, 4D1 kappa, which encodes an amino acid sequence from a claimed
 CC immunoglobulin that specifically binds human CD4. The anti-CD4 antibodies
 CC may be used in therapeutic and diagnostic applications, especially for

CC the treatment of human diseases. These antibodies reduce activity of CD4
CC cells and reduce undesirable autoimmune reactions, inflammatory response
CC and transplant rejection. Transgenic animals are capable of producing
CC heterologous antibodies of multiple isotypes by undergoing isotype
CC switching. These animals produce a first Ig type that is necessary for
CC antigen-stimulated B-cell maturation and can switch to encode and produce
CC one or more subsequent heterologous isotypes

XX

SQ Sequence 439 BP; 100 A; 122 C; 106 G; 111 T; 0 U; 0 Other;

Query Match 100.0%; Score 439; DB 2; Length 439;
Best Local Similarity 100.0%; Pred. No. 6e-127;
Matches 439; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy      1 ATGGACATGGAGTTCCCCGTTCTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC 60
      |||
Db      1 ATGGACATGGAGTTCCCCGTTCTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC 60

Qy      61 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA 120
      |||
Db      61 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA 120

Qy      121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180
      |||
Db      121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180

Qy      181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240
      |||
Db      181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240

Qy      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
      |||
Db      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300

Qy      301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360
      |||
Db      301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360

Qy      361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420
      |||
Db      361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420

Qy      421 CCGCCATCTGATGAAGCTT 439
      |||
Db      421 CCGCCATCTGATGAAGCTT 439
```

RESULT 2

AAZ21995

ID AAZ21995 standard; DNA; 439 BP.

XX

AC AAZ21995;

XX

DT 24-NOV-1999 (first entry)

XX

DE Partial nucleotide sequence for a functional transcript 4D1-kappa.

XX

Qy 121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180
 |||
 Db 121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180

Qy 181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240
 |||
 Db 181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240

Qy 241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
 |||
 Db 241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300

Qy 301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360
 |||
 Db 301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360

Qy 361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420
 |||
 Db 361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420

Qy 421 CCGCCATCTGATGAAGCTT 439
 |||
 Db 421 CCGCCATCTGATGAAGCTT 439

RESULT 3

AAV39241

ID AAV39241 standard; DNA; 409 BP.

XX

AC AAV39241;

XX

DT 18-DEC-1998 (first entry)

XX

DE Functional kappa transcript isolated from transgenic cell line 4D1.

XX

KW Transgenic animal; human heterologous antibody; transgene;
 KW isotype switching; neutrophil efflux; reperfusion injury; CD4 binding;
 KW autoimmune reaction; inflammatory response; transplant rejection;
 KW acid induced lung injury; acute adult respiratory distress syndrome;
 KW ARDS; vasculitis; septic shock; allergic reaction; asthma;
 KW cystic fibrosis; ss.

XX

OS Synthetic.

OS Homo sapiens.

OS Mus sp.

XX

PN WO9824884-A1.

XX

PD 11-JUN-1998.

XX

PF 01-DEC-1997; 97WO-US021803.

XX

PR 02-DEC-1996; 96US-00758417.

XX

PA (GENP-) GENPHARM INT.

XX

PI Lonberg N, Kay RM;
 XX
 DR WPI; 1998-333306/29.
 XX
 PT Hybridoma producing antibody specific for interleukin-8 - used to prevent
 PT efflux of neutrophils from vasculature, and treat reperfusion injury.
 XX
 PS Example 41; Page 304-305; 452pp; English.
 XX
 CC AAV39232-41 represent functional transcripts of a human IgGKappa anti-CD4
 CC antibody. The sequences are isolated from 5 different transgenic mouse
 CC hybridoma cell lines. The specification describes transgenic non-human
 CC animals, especially a mouse, which are capable of producing a human
 CC heterologous antibodies of multiple isotypes by undergoing isotype
 CC switching. The transgenic animals have human heavy and light chain
 CC transgenes. The transgenes are capable of functionally rearranging a
 CC heterologous diversity (D) gene in a variable-diversity-junction (V-D-J)
 CC recombination. The transgenes include a heavy chain transgene comprising
 CC at least one V, D and J gene segment, and one constant region gene
 CC segment. The immunoglobulin (Ig) light chain transgene comprises at least
 CC one V and J gene segment and one constant region gene segment. The gene
 CC segments are heterologous to the transgenic animal. The antibody can be
 CC used to prevent efflux of neutrophils from vasculature. It can also be
 CC used to treat reperfusion injury. CD4 binding antibodies are used to
 CC reduce undesirable autoimmune reactions, inflammatory responses and
 CC rejection of transplanted organs. The anti-IL-8 antibodies can reduce
 CC tissue damage and prolong survival in animal models of acute adult
 CC respiratory distress syndrome (ARDS) and acid induced lung injury. The
 CC anti-IL-8 antibodies can also be used for the treatment of vasculitis,
 CC septic shock, allergic reactions (e.g. asthma) and cystic fibrosis
 XX
 SQ Sequence 409 BP; 95 A; 112 C; 102 G; 100 T; 0 U; 0 Other;

Query Match 93.2%; Score 409; DB 2; Length 409;
 Best Local Similarity 100.0%; Pred. No. 1.4e-117;
 Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	ATGGACATGGAGTTCCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC	60
Db	1	ATGGACATGGAGTTCCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC	60
Qy	61	AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA	120
Db	61	AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA	120
Qy	121	GTCACCATCACTTGTTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG	180
Db	121	GTCACCATCACTTGTTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG	180
Qy	181	AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC	240
Db	181	AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC	240
Qy	241	CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG	300
Db	241	CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG	300

Qy 301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360
 |||
 Db 301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360
 Qy 361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTG 409
 |||
 Db 361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTG 409

RESULT 4

ADM32966

ID ADM32966 standard; DNA; 711 BP.

XX

AC ADM32966;

XX

DT 17-JUN-2004 (first entry)

XX

DE Nucleotide sequence of a human kappa light chain homologue.

XX

KW protein production; moss; protoplast; light chain; ss.

XX

OS Homo sapiens.

XX

PN WO2004024927-A1.

XX

PD 25-MAR-2004.

XX

PF 08-SEP-2003; 2003WO-EP009959.

XX

PR 12-SEP-2002; 2002EP-00020382.

PR 11-JUL-2003; 2003EP-00015881.

XX

PA (GREE-) GREENOVATION BIOTECH GMBH.

XX

PI Gorr G, Launhardt H, Berg B;

XX

DR WPI; 2004-270051/25.

XX

PT Achieving transient expression of at least an extracellular non-plant

PT protein from a heterologous nucleotide sequence in moss protoplast

PT comprises transiently introducing into the protoplast a heterologous

PT nucleic acid construct.

XX

PS Example 3; Page 34-35; 49pp; English.

XX

CC The specification describes a method for the production of extracellular
 CC non-plant protein from moss protoplasts. The method comprises transiently
 CC introducing into the protoplast a heterologous nucleic acid construct

CC comprising a heterologous nucleotide sequence operably linked to a

CC promoter. The heterologous nucleotide sequence encodes a protein selected

CC from heterodimer, fusion antibody, immunoglobulin or single-chain

CC antibody. The method is useful for protein production. The present

CC sequence represents DNA encoding a human kappa light chain homologue.

CC This polynucleotide is cloned and expressed in *Physcomitrella patens*

CC using the method of the invention.

XX

SQ Sequence 711 BP; 184 A; 196 C; 175 G; 156 T; 0 U; 0 Other;

Query Match 89.4%; Score 392.4; DB 12; Length 711;
 Best Local Similarity 94.0%; Pred. No. 2.8e-112;
 Matches 408; Conservative 0; Mismatches 26; Indels 0; Gaps 0;

```

Qy      1 ATGGACATGGAGTTCCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC 60
        |||||
Db      1 ATGGACATGAGAGTCCTCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC 60

Qy     61 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA 120
        |||||
Db     61 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTGCGGAGACACA 120

Qy    121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180
        |||||
Db    121 GTCACCATCACTTGTCTGGGCGAGTCAGGACATTAGCAATTATTTAGCCTGGTTTCAGCAG 180

Qy    181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240
        |||||
Db    181 AAACCAGGGAAAGCCCCCTAAGTCCCTGATCTATGGTGCATCCAGTTTGCAAAGTGGGGTC 240

Qy    241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
        |||||
Db    241 CAATCAAAGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300

Qy    301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360
        |||||
Db    301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATAAAAGTTATCCTGTCACTTTT 360

Qy    361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420
        |||||
Db    361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420

Qy    421 CCGCCATCTGATGA 434
        |||||
Db    421 CCGCCATCTGATGA 434
  
```

RESULT 5

AAD56221

ID AAD56221 standard; DNA; 463 BP.

XX

AC AAD56221;

XX

DT 07-AUG-2003 (first entry)

XX

DE Human AB-PG1-XG1-051 PSMA antibody light chain variable region (VL) DNA.

XX

KW Human; Prostate specific membrane antigen; carcinoma; sarcoma; cancer;

KW PSMA; melanoma; therapy; N-acetylated alpha-linked acidic dipeptidase;

KW folate hydrolase; dipeptidyl dipeptidase IV; gamma-glutamyl hydrolase;

KW NAALADase; antibody; light chain variable region; VL; gene; ds.

XX

OS Homo sapiens.

XX

FH Key Location/Qualifiers

FT CDS 11..391

FT /*tag= a
 FT /product= "PSMA antibody light chain variable region"
 FT /note= "No stop codon"
 FT ./partial
 XX
 PN WO2003034903-A2.
 XX
 PD 01-MAY-2003.
 XX
 PF 23-OCT-2002; 2002WO-US033944.
 XX
 PR 23-OCT-2001; 2001US-0335215P.
 PR 07-MAR-2002; 2002US-0362747P.
 PR 20-SEP-2002; 2002US-0412618P.
 XX
 PA (PSMA-) PSMA DEV CO LLC.
 XX
 PI Maddon PJ, Donovan GP, Olson WC, Schuelke N, Gardner J, Ma D;
 XX
 DR WPI; 2003-403281/38.
 DR P-PSDB; AAE37206.
 XX
 PT Novel isolated antibody which binds to epitope on prostate specific
 PT membrane antigen, and competitively inhibits binding of second antibody
 PT to its target epitope on the antigen, useful for treating prostate
 PT cancer.
 XX
 PS Claim 20; Page 232-233; 238pp; English.
 XX
 CC The invention relates to an antibody or its antigen-binding fragment
 CC which specifically binds to epitope on prostate specific membrane antigen
 CC (PSMA), and competitively inhibits the specific binding of a second
 CC antibody to its target epitope on PSMA. The invention is useful for
 CC diagnosing, treating or preventing PSMA-mediated disease such as prostate
 CC cancer or non-prostate cancer bladder chosen from cancer including
 CC transitional cell carcinoma, pancreatic cancer including pancreatic duct
 CC carcinoma, lung cancer including non-small cell lung carcinoma, kidney
 CC cancer including conventional renal cell carcinoma, sarcoma including
 CC soft tissue sarcoma, breast cancer including breast carcinoma, brain
 CC cancer including glioblastoma multiforme, neuroendocrine carcinoma, colon
 CC cancer including colonic carcinoma, testicular cancer including
 CC testicular embryonal carcinoma, or melanoma including malignant melanoma.
 CC The invention is useful also for inhibiting or enhancing folate hydrolase
 CC activity of a folate hydrolase polypeptide, N-acetylated alpha-linked
 CC acidic dipeptidase (NAALADase) activity of a NAALADase polypeptide,
 CC dipeptidyl dipeptidase IV activity of a dipeptidyl dipeptidase IV
 CC polypeptide, gamma-glutamyl hydrolase activity of a gamma-glutamyl
 CC hydrolase polypeptide. The present sequence is human PSMA antibody light
 CC chain variable region (VL) DNA
 XX
 SQ Sequence 463 BP; 106 A; 130 C; 111 G; 116 T; 0 U; 0 Other;

Query Match 88.6%; Score 389; DB 8; Length 463;
 Best Local Similarity 94.2%; Pred. No. 2.8e-111;
 Matches 404; Conservative 0; Mismatches 25; Indels 0; Gaps 0;

QY 6 CATGGAGTTCCTCGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCCAGATG 65

Db	10	CATGAGGGTCCCTGCTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCCAGATG	69
Qy	66	TGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGAGTCAC	125
Db	70	TGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGAGTCAC	129
Qy	126	CATCACTTGTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACC	185
Db	130	CATCACTTGTCGGGCGAGTCAGGGCATTAGCCATTATTTAGCCTGGTTTCAGCAGAAACC	189
Qy	186	AGAGAAAGCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTCCCATC	245
Db	190	AGGGAAAGCCCCTAAGTCCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCCATC	249
Qy	246	AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC	305
Db	250	AAAGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTACAGCC	309
Qy	306	TGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTTGGCCA	365
Db	310	TGAAGATTTTGCAACTTATTACTGCCAACAGTATAATAGTTTCCCGCTCACTTTTCGGCGG	369
Qy	366	GGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCC	425
Db	370	AGGGACCAAGGTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCC	429
Qy	426	ATCTGATGA	434
Db	430	ATCTGATGA	438

RESULT 6

AAD56212

ID AAD56212 standard; DNA; 6082 BP.

XX

AC AAD56212;

XX

DT 07-AUG-2003 (first entry)

XX

DE Human AB-PG1-XG1-051 PSMA antibody light chain DNA.

XX

KW Human; Prostate specific membrane antigen; carcinoma; sarcoma; cancer;

KW PSMA; melanoma; therapy; N-acetylated alpha-linked acidic dipeptidase;

KW folate hydrolase; dipeptidyl dipeptidase IV; gamma-glutamyl hydrolase;

KW NAALADase; antibody; ds.

XX

OS Homo sapiens.

XX

PN WO2003034903-A2.

XX

PD 01-MAY-2003.

XX

PF 23-OCT-2002; 2002WO-US033944.

XX

PR 23-OCT-2001; 2001US-0335215P.

PR 07-MAR-2002; 2002US-0362747P.

XX

PA

PT

XX

DR

PT

PT

PT

PT

PS

XX

cc

CC

SQ

Query Match

Best Local Similarity

Matches 404; Conservative

 Q_y

Db

Qv

Qy

Qv

—

Db

XX

PT

PT

XX

XX

SC

Query Match

Best Local Similarity 93.7%; Pred. No. 2.8e-110;

Matches 402; Conservative 0; Mismatches 27; Indels 0; Gaps 0;

Ov

Db

Qy

Db

Qy

Db

Qy

Db

Qy.

Db

Qy

```

      |||
Db      310 TGAAGATTTTGCACCTTATTACTGCCAACAGTATAATAGTTACCCGATCACCTTCGGCCA 369
      |||
Qy      366 GGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCC 425
      |||
Db      370 AGGGACACGACTGGAGATTAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCC 429
      |||
Qy      426 ATCTGATGA 434
      |||
Db      430 ATCTGATGA 438

```

RESULT 8

AAD56211

ID AAD56211 standard; DNA; 6082 BP.

XX

AC AAD56211;

XX

DT 07-AUG-2003 (first entry)

XX

DE Human AB-PG1-XG1-026 PSMA antibody light chain DNA.

XX

KW Human; Prostate specific membrane antigen; carcinoma; sarcoma; cancer;

KW PSMA; melanoma; therapy; N-acetylated alpha-linked acidic dipeptidase;

KW folate hydrolase; dipeptidyl dipeptidase IV; gamma-glutamyl hydrolase;

KW NAALADase; antibody; ds.

XX

OS Homo sapiens.

XX

PN WO2003034903-A2.

XX

PD 01-MAY-2003.

XX

PF 23-OCT-2002; 2002WO-US033944.

XX

PR 23-OCT-2001; 2001US-0335215P.

PR 07-MAR-2002; 2002US-0362747P.

PR 20-SEP-2002; 2002US-0412618P.

XX

PA (PSMA-) PSMA DEV CO LLC.

XX

PI Maddon PJ, Donovan GP, Olson WC, Schuelke N, Gardner J, Ma D;

XX

DR WPI; 2003-403281/38.

XX

PT Novel isolated antibody which binds to epitope on prostate specific
PT membrane antigen, and competitively inhibits binding of second antibody
PT to its target epitope on the antigen, useful for treating prostate
PT cancer.

XX

PS Claim 1; Page 209-212; 238pp; English.

XX

CC The invention relates to an antibody or its antigen-binding fragment
CC which specifically binds to epitope on prostate specific membrane antigen
CC (PSMA), and competitively inhibits the specific binding of a second
CC antibody to its target epitope on PSMA. The invention is useful for
CC diagnosing, treating or preventing PSMA-mediated disease such as prostate

ID AAA27389 standard; cDNA; 817 BP.
XX
AC AAA27389;
XX
DT 16-AUG-2000 (first entry)
XX
DE Human IGFAM-9 immunoglobulin coding sequence.
XX
KW Human; immunoglobulin; IGFAM-9; IGFAM; immune disorder; cancer;
KW infection; inflammation; haematopoiesis; AIDS; allergy; ss.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 11..721
FT /*tag= a
FT /product= "IGFAM-9"
FT sig_peptide 11..76
FT /*tag= b
FT mat_peptide 77..718
FT /*tag= c
XX
PN WO200029583-A2.
XX
PD 25-MAY-2000.
XX
PF 19-NOV-1999; 99WO-US027566.
XX
PR 19-NOV-1998; 98US-00195853.
PR 22-DEC-1998; 98US-0113635P.
PR 07-APR-1999; 99US-0128194P.
XX
PA (INCY-) INCYTE PHARM INC.
XX
PI Yue H, Tang YT, Corley NC, Guegler KJ, Gorgone GA, Baughn MR;
PI Lu DAM, Lal P, Hillman JL, Yang J;
XX
DR WPI; 2000-387796/33.
DR P-PSDB; AAY96297.
XX
PT Immunoglobulin superfamily proteins, the agonist and antagonist of the
PT protein is useful for preventing and treating disorders associated with
PT altered levels of the protein such as cancer, immune system disorders.
XX
PS Claim 9; Page 99; 105pp; English.
XX
CC The present sequence is the human immunoglobulin superfamily protein
CC IGFAM-9 gene, which was isolated from a cDNA library of breast tumour
CC tissue. It is expressed in reproductive, gastrointestinal and immune and
CC haematopoietic tissue, where cancer and inflammation are common. The
CC gene, protein, its antibodies, agonists and antagonists are suitable for
CC diagnosing and treating many diseases, including cancer, immune system
CC disorders (such as inflammation, AIDS, allergies, anaemia,
CC arteriosclerosis, asthma, atherosclerosis, cholecystitis, Crohn's
CC disease, diabetes mellitus, emphysema, Graves' disease, hepatitis,
CC multiple sclerosis, psoriasis, rheumatoid arthritis, scleroderma,
CC systemic lupus erythematosus and ulcerative colitis), complications of

KW monoclonal antibody; allergy; rheumatoid arthritis; diabetes mellitus;
 KW multiple sclerosis; autoimmune thyroiditis; psoriasis; hepatitis;
 KW allergic contact-type dermatitis; chronic inflammatory dermatosis;
 KW systemic lupus erythematosus; autoimmune disorder; inflammation; ss;
 KW graft versus host reaction; immune rejection; intestinal immunity;
 KW ulcerative colitis; pneumonia; nephritis; vasculitis; pancreatitis.
 XX
 OS Homo sapiens.
 XX
 PN WO200187981-A2.
 XX
 PD 22-NOV-2001.
 XX
 PF 15-MAY-2001; 2001WO-JP004035.
 XX
 PR 18-MAY-2000; 2000JP-00147116.
 PR 30-MAR-2001; 2001JP-00099508.
 XX
 PA (NISB) JAPAN TOBACCO INC.
 XX
 PI Tsuji T, Tezuka K, Hori N;
 XX
 DR WPI; 2002-075313/10.
 DR P-PSDB; AAU74297.
 XX
 PT New human monoclonal antibody that binds to activation inducible
 PT lymphocyte immunomodulatory molecule, useful for treating rheumatoid
 PT arthritis, multiple sclerosis and inflammation.
 XX
 PS Claim 45; Page 267-270; 300pp; English.
 XX
 CC The invention relates to a novel human antibody (I), preferably a human
 CC monoclonal antibody which binds to an activation inducible lymphocyte
 CC immunomodulatory molecule (AILIM). (I) is useful for modulating signal
 CC transduction into a cell mediated by AILIM, for modulating proliferation
 CC of AILIM-expressing cells, for modulating production of a cytokine from
 CC AILIM-expressing cells, and for inducing antibody-dependent cytotoxicity
 CC against AILIM-expressing cells and/or immune cytolysis or apoptosis of
 CC AILIM-expressing cells. (I) is useful for treating, preventing or
 CC prophylaxis of delayed type allergy. (I) is useful for treating and
 CC preventing various diseases associated with AILIM-mediated costimulatory
 CC transduction, and for inhibiting the onset and/or advancement of the
 CC diseases. (I) is useful for suppression, prevention and/or treatment of
 CC rheumatoid arthritis, multiple sclerosis, autoimmune thyroiditis,
 CC allergic contact-type dermatitis, chronic inflammatory dermatosis,
 CC systemic lupus erythematosus, insulin-dependent diabetes mellitus,
 CC psoriasis, autoimmune or allergic disorders, inflammation, graft versus
 CC host reaction, graft versus host disease, immune rejection, disorders
 CC caused by abnormal intestinal immunity, specifically inflammatory
 CC intestinal disorders such as ulcerative colitis, pneumonia, hepatitis,
 CC nephritis, vasculitis, and pancreatitis. (I) induces no serious
 CC immunorejection due to antigenicity to human, i.e., human anti-mouse
 CC antigenicity (HAMA) in a host. AAS99444-AAS99477 represent anti-human
 CC AILIM monoclonal antibody coding sequences and PCR primers of the
 CC invention
 XX
 SQ Sequence 974 BP; 246 A; 282 C; 232 G; 214 T; 0 U; 0 Other;

Query Match 86.8%; Score 381.2; DB 6; Length 974;
 Best Local Similarity 92.4%; Pred. No. 1e-108;
 Matches 401; Conservative 0; Mismatches 33; Indels 0; Gaps 0;

```

Qy      1 ATGGACATGGAGTTCCCGTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC 60
        ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db      39 ATGGACATGAGGGTCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTC 98

Qy      61 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA 120
        ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db      99 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 158

Qy     121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180
        ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db     159 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGGTTGTTAGCCTGGTATCAGCAG 218

Qy     181 AAACCAGAGAAAGCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240
        ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db     219 AAACCAGGGAAAGCCCCTAAACTCCTGATCTATGTTGCATCCAGTTTGCAAAGTGGGGTC 278

Qy     241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
        ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db     279 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 338

Qy     301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360
        ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db     339 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCGTGGACGTTT 398

Qy     361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420
        ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db     399 GGCCAAGGGACCAAGCTGGAAATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 458

Qy     421 CCGCCATCTGATGA 434
        ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db     459 CCGCCATCTGATGA 472
  
```

RESULT 11

AAT78825

ID AAT78825 standard; DNA; 3819 BP.

XX

AC AAT78825;

XX

DT 23-JAN-1998 (first entry)

XX

DE Kappa light chain plasmid pLC6G5.

XX

KW Ig; affinity constant; human; antigen; hybridoma; B cell; transgene;

KW transgenic; mouse; CD4; antibody; autoimmune; inflammatory;

KW transplant rejection; immunoglobulin; ss.

XX

OS Synthetic.

OS Homo sapiens.

XX

PN WO9713852-A1.

XX

PD 17-APR-1997.
XX
PF 10-OCT-1996; 96WO-US016433.
XX
PR 10-OCT-1995; 95US-00544404.
XX
PA (GENP-) GENPHARM INT INC.
XX
PI Lonberg N, Kay RM;
XX
DR WPI; 1997-235888/21.
XX
PT Novel anti-CD4 antibody produced by transgenic mice - used in the
PT treatment of auto-immune disease etc.
XX
PS Example 42; Page 266-268; 396pp; English.
XX
CC A novel composition has been developed which comprises an immunoglobulin
CC (Ig) having an affinity constant (Ka) of at least 2 multiply 1000000000 M
CC -1 for binding to a predetermined human antigen. The present sequence
CC represents the kappa light chain plasmid pLC6G5 which includes the kappa
CC constant region and polyadenylation site. Anti- CD4 antibodies may be
CC used in therapeutic and diagnostic applications, especially for the
CC treatment of human diseases. These antibodies reduce activity of CD4
CC cells and reduce undesirable autoimmune reactions, inflammatory response
CC and transplant rejection. Transgenic animals are capable of producing
CC heterologous antibodies of multiple isotypes by undergoing isotype
CC switching. These animals produce a first Ig type that is necessary for
CC antigen-stimulated B-cell maturation and can switch to encode and produce
CC one or more subsequent heterologous isotypes
XX
SQ Sequence 3819 BP; 947 A; 1015 C; 912 G; 945 T; 0 U; 0 Other;

[illegible]

RESULT 12

AAV39266

ID AAV39266 standard; DNA; 3819 BP.

XX

AC AAV39266;

XX

DT 18-DEC-1998 (first entry)

XX

DE Plasmid pLC6G5 nucleotide sequence.

XX

KW Transgenic animal; human heterologous antibody; transgene;

KW isotype switching; neutrophil efflux; reperfusion injury; CD4 binding;

KW autoimmune reaction; inflammatory response; transplant rejection;

KW acid induced lung injury; acute adult respiratory distress syndrome;

KW ARDS; vasculitis; septic shock; allergic reaction; asthma;

KW cystic fibrosis; ss.

XX

OS Synthetic.

OS Homo sapiens.

XX

PN WO9824894-A1.

XX

PD 11-JUN-1998.

XX

PF 01-DEC-1997; 97WO-US021803.

XX

PR 02-DEC-1996; 96US-00758417.

XX

PA (GENP-) GENPHARM INT.

XX

PI Lonberg N, Kay RM;

XX

DR WPI; 1998-333306/29.

XX

PT Hybridoma producing antibody specific for interleukin-8 - used to prevent

PT efflux of neutrophils from vasculature, and treat reperfusion injury.

XX

PS Example 42; Page 317-319; 452pp; English.

XX

CC The present sequence represents a plasmid, pLC6G5, which contains a

CC synthetic kappa light chain sequence (created using oligonucleotide

CC AAV39244-65). This synthetic sequence differs from natural sequences in

CC that strings of repeated oligonucleotides are interrupted (to facilitate

CC oligonucleotide synthesis and PCR amplification), optimal translation

QY 426 ATCTGATGA 434
|||
Db 2865 ATCTGATGA 2873

RESULT 13

AAZ22020

ID AAZ22020 standard; DNA; 3819 BP.

XX

AC AAZ22020;

XX

DT 24-NOV-1999 (first entry)

XX

DE Nucleotide sequence of plasmid pLC6G5.

XX

KW Transgenic animal; heterologous antibody; hybridoma; B cell;

KW transgenic mouse; human heavy chain transgene; digoxin;

KW human light chain transgene; immortalized cell; immunoglobulin;

KW Shinga-like toxin; autoimmune disease; cancer; infectious disease;

KW transplant rejection; blood disorder; coagulation disorder; ss.

XX

OS Synthetic.

XX

PN WO9945962-A1.

XX

PD 16-SEP-1999.

XX

PF 12-MAR-1999; 99WO-US005535.

XX

PR 13-MAR-1998; 98US-00042353.

XX

PA (GENP-) GENPHARM INT INC.

XX

PI Lonberg N, Fishwild DM, Ball WJ;

XX

DR WPI; 1999-551219/46.

XX

PT Novel transgenic non-human animals used to produce heterologous
PT antibodies.

XX

PS Example 42; Page 318-320; 484pp; English.

XX

CC The specification describes transgenic animals that are capable of
CC producing a heterologous antibody. The antibodies are isolated from a
CC hybridoma, comprising B cells, that is obtained from a transgenic mouse
CC having a genome comprising a human heavy chain transgene and a human
CC light chain transgene. The B cells are fused to immortalized cells
CC suitable for generating a hybridoma, which produces a detectable amount
CC of an immunoglobulin that specifically binds digoxin or Shinga-like
CC toxin. B cells from transgenic animals can be used to generate hybridomas
CC expressing monoclonal high affinity human sequence antibodies. Antibodies
CC produced from the transgenic animals of the invention can be used to
CC treat human diseases, e.g. autoimmune diseases, cancer, infectious
CC disease, transplant rejection, blood disorders such as coagulation
CC disorders and other diseases. The present sequence is used in the course
CC of the invention

XX

SQ Sequence 3819 BP; 947 A; 1015 C; 912 G; 945 T; 0 U; 0 Other;

Query Match 86.1%; Score 377.8; DB 2; Length 3819;

Best Local Similarity 92.5%; Pred. No. 2.1e-107;

Matches 397; Conservative 0; Mismatches 32; Indels 0; Gaps 0;

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Qy      6 CATGGAGTTCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCCAGATG 65
      ||||| | ||||| | ||||| || ||||| ||||| ||||| ||||| ||||| |||||
Db    2445 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCACAGGTCCAGATG 2504

Qy      66 TGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGAGTCAC 125
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    2505 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 2564

Qy     126 CATCACTTGTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACC 185
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    2565 CATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 2624

Qy     186 AGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTCCCATC 245
      || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    2625 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 2684

Qy     246 AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 305
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    2685 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 2744

Qy     306 TGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTTGGCCA 365
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    2745 TGAAGATTTTGCAACTTATTATGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 2804

Qy     366 GGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCC 425
      ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    2805 GGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCC 2864

Qy     426 ATCTGATGA 434
      ||||| |||
Db    2865 ATCTGATGA 2873
```

RESULT 14

AAH41157

ID AAH41157 standard; DNA; 438 BP.

XX

AC AAH41157;

XX

DT 22-AUG-2001 (first entry)

XX

DE Human coding sequence SEQ ID 11.

XX

KW Human; antiarthritic; cardiant; monoclonal antibody; keloid; arthritis;

KW Tumour Growth Factor-beta II receptor; TGF-beta II receptor; atopy;

KW signal transduction inhibition; tissue fibrosis; atherosclerosis; ds.

XX

OS Homo sapiens.

XX

PN WO200136642-A1.

Run on: December 2, 2004, 12:19:03 ; Search time 64.118 Seconds
 (without alignments)
 4866.596 Million cell updates/sec

Title: US-08-728-463B-208
 Perfect score: 439
 Sequence: 1 ATGGACATGGAGTTCCCCGT.....CCCGCCATCTGATGAAGCTT 439

Scoring table: IDENTITY_NUC
 Gapop 10.0 ; Gapext 1.0

Searched: 824507 seqs, 355394441 residues

Total number of hits satisfying chosen parameters: 1649014

Minimum DB seq length: 0
 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
 Maximum Match 100%
 Listing first 45 summaries

Database : Issued_Patents_NA:*
 1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
 2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*
 3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*
 4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*
 5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
 6: /cgn2_6/ptodata/1/ina/backfiles1.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Match	Query Length	ID	Description
1	439	100.0	439	3 US-09-042-353-360	Sequence 360, App
2	439	100.0	439	3 US-08-758-417A-208	Sequence 208, App
3	377.8	86.1	3819	3 US-09-042-353-393	Sequence 393, App
4	377.8	86.1	3819	3 US-08-758-417A-243	Sequence 243, App
5	368.4	83.9	714	4 US-09-472-087-62	Sequence 62, Appl
6	365.2	83.2	1066	1 US-08-157-101A-4	Sequence 4, Appli
7	357.8	81.5	420	3 US-09-042-353-420	Sequence 420, App
8	357.8	81.5	420	3 US-08-758-417A-220	Sequence 220, App
9	351.2	80.0	388	3 US-09-042-353-358	Sequence 358, App
10	351.2	80.0	388	3 US-08-758-417A-206	Sequence 206, App
11	350.8	79.9	19040	4 US-09-343-485A-3	Sequence 3, Appli
12	333.6	76.0	705	1 US-08-488-376-16	Sequence 16, Appl
13	333.6	76.0	705	2 US-08-634-223-16	Sequence 16, Appl
14	333.6	76.0	705	2 US-08-634-224-16	Sequence 16, Appl
15	333.6	76.0	705	2 US-08-634-400-16	Sequence 16, Appl
16	333.6	76.0	705	2 US-08-635-878-16	Sequence 16, Appl
17	333.6	76.0	705	2 US-08-770-057-16	Sequence 16, Appl
18	333.6	76.0	705	3 US-09-335-697B-16	Sequence 16, Appl

19.	333.6	76.0	705	4	US-09-335-697B-16	Sequence 16, Appl
20	333.6	76.0	705	4	US-09-740-002-16	Sequence 16, Appl
21	320	72.9	990	4	US-09-800-729-79	Sequence 79, Appl
22	318.8	72.6	708	1	US-08-488-376-18	Sequence 18, Appl
23	318.8	72.6	708	2	US-08-634-223-18	Sequence 18, Appl
24	318.8	72.6	708	2	US-08-634-224-18	Sequence 18, Appl
25	318.8	72.6	708	2	US-08-634-400-18	Sequence 18, Appl
26	318.8	72.6	708	2	US-08-635-878-18	Sequence 18, Appl
27	318.8	72.6	708	2	US-08-770-057-18	Sequence 18, Appl
28	318.8	72.6	708	3	US-09-335-697B-18	Sequence 18, Appl
29	318.8	72.6	708	4	US-09-335-697B-18	Sequence 18, Appl
30	318.8	72.6	708	4	US-09-740-002-18	Sequence 18, Appl
31	314	71.5	941	4	US-09-800-729-81	Sequence 81, Appl
32	313.6	71.4	384	1	US-08-259-372A-13	Sequence 13, Appl
33	313.6	71.4	384	1	US-08-468-671-13	Sequence 13, Appl
34	313.4	71.4	387	1	US-08-217-918-1	Sequence 1, Appli
35	313.2	71.3	390	2	US-08-646-367-2	Sequence 2, Appli
36	308.8	70.3	642	1	US-08-157-101A-8	Sequence 8, Appli
37	307	69.9	387	3	US-08-803-085-3	Sequence 3, Appli
38	300.8	68.5	672	4	US-09-456-090A-47	Sequence 47, Appl
39	300.8	68.5	672	4	US-09-453-234-47	Sequence 47, Appl
40	297.4	67.7	847	1	US-08-053-131-184	Sequence 184, App
41	297.4	67.7	847	1	US-08-096-762-184	Sequence 184, App
42	297.4	67.7	847	3	US-09-042-353-47	Sequence 47, Appl
43	297.4	67.7	847	3	US-08-758-417A-312	Sequence 312, App
c 44	294.4	67.1	371	4	US-09-389-681-187	Sequence 187, App
c 45	294.4	67.1	371	4	US-09-620-405B-187	Sequence 187, App

ALIGNMENTS

RESULT 1

US-09-042-353-360

; Sequence 360, Application US/09042353

; Patent No. 6255458

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 6255458-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 421

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP

; STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94111-3834

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/042,353

; FILING DATE: 13-MAR-1998

; CLASSIFICATION: 800
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/810,279
; FILING DATE: 17-DEC-1991
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/853,408
; FILING DATE: 18-MAR-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/904,068
; FILING DATE: 23-JUN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/990,860
; FILING DATE: 16-DEC-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/053,131
; FILING DATE: 26-APR-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/096,762
; FILING DATE: 22-JUL-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/155,301
; FILING DATE: 18-NOV-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/161,739
; FILING DATE: 03-DEC-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/165,699
; FILING DATE: 10-DEC-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/209,741
; FILING DATE: 09-MAR-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/352,322
; FILING DATE: 07-DEC-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/544,404
; FILING DATE: 10-OCT-1995
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/728,463
; FILING DATE: 10-OCT-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/US96/16433
; FILING DATE: 10-OCT-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/758,417
; FILING DATE: 02-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/US97/21803
; FILING DATE: 01-DEC-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Apple, Randolph T.
; REGISTRATION NUMBER: 36,429
; REFERENCE/DOCKET NUMBER: 014643-009040US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 576-0200
; TELEFAX: (415) 576-0300
; INFORMATION FOR SEQ ID NO: 360:

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; SEQUENCE CHARACTERISTICS:
;   LENGTH: 439 base pairs
;   TYPE: nucleic acid
;   STRANDEDNESS: single
;   TOPOLOGY: linear
;   MOLECULE TYPE: DNA
US-09-042-353-360

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Query Match          100.0%; Score 439; DB 3; Length 439;
Best Local Similarity 100.0%; Pred. No. 1.1e-133;
Matches 439; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 ATGGACATGGAGTTCCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC 60
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 ATGGACATGGAGTTCCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC 60

Qy     61 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA 120
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Qy    121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180

Qy    181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240

Qy    241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300

Qy    301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360

Qy    361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420

Qy    421 CCGCCATCTGATGAAGCTT 439
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RESULT 2

US-08-758-417A-208

; Sequence 208, Application US/08758417A

; Patent No. 6300129

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 6300129-Human Animals for
Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 417

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP